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THE
MIDLAND FLORIST,

AND

Horticulturist,

A HAND-BOOK FOR THE AMATEUR AND FLORIST.

EDITED BY

ALFRED G. SUTTON, F.H.S.,

AUTHOR OF "FAVOURITE FLOWERS," ETC.

"GARDENING IS THE PUREST OF HUMAN PLEASURES."

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JANUARY.

George Glenny to Alfred Sutton.

I CONGRATULATE you on assuming the command of the *Midland Florist*, for my experience has taught me that it is a moral impossibility for a work to succeed unless one mind alone governs every thing. To bring this home to every gardeners' experience let me mention the *Gardener's Gazette*, which, under any editorship, continued to rise until it was sold for four thousand pounds, and when proprietors interfered and I threw it up, fell till it brought only three hundred and fifty.

Look at the *Gardener's Journal* too, with the combined influence of nearly two thousand gardeners, it ought to have passed any thing; but as it was governed by a committee it fell to nothing. I could mention a hundred cases where a divided government has caused failures. I therefore congratulate you on taking the sole management, and I auger well for the success of the work. With punctuality and good management I am sure will come a continuance of that help with which we have hitherto been so highly favoured. Enter therefore upon your office with good heart; write as you would speak, be firm of purpose, and this time twelve months you will see the *Midland Florist* at the head of the monthly magazines of Horticulture, and trebling its present circulation.

GEORGE GLENNY.

JANUARY—VOL. XIII.

Roses.

WE append from a work entitled *The Flower Garden*, by E. J. Delamer, an article on Roses, which will be interesting to our numerous readers.

ROSE. Multitudinous in species, endless in variety. For any one in search of a floricultural fancy or hobby-horse, perhaps no better *protège* can be recommended than the genus Rose to take into favour. For, independent of all historical and poetical associations; and forgetting its sweet inoffensive perfume and its medicinal virtues, the Rose affords a subject for rivalry and exhibition, with great diversity of form, colour, habit, and constitution. Although it is easy for those who have few horticultural appliances, to form a fine collection of hardy kinds, others, whose means put them in possession of frames, hothouses, and green-houses, may extend their lists by tender sorts, equally charming and more rare,—may anticipate the summer's bloom, by forcing; may rescue autumnal buds, by shelter, from perishing, and may enjoy the luxury of roses all the year round; not, as with *Ranunculuses* so treated, by a constant repetition of the same thing over and over again, but by bringing forward, in their natural order, a diversity of plants which have a tendency to bloom at different seasons. The sight of a well-kept Rosary in spring, summer, autumn, and winter, will convince you that the above remarks are founded on truth. Supposing that you consult the *Gardener's Chronicle*, and that you run your eye through the advertisements there, you will have met with several pressing invitations to visit, during their season, sundry fine collections of roses, all unrivalled;—none but themselves can be their parallel;—all in full bloom, and likely to continue so, till November comes to draggle their petals and scatter their leaves. Reversing the celebrated advice to persons about to marry—"Don't!" I will take the liberty, when a Rose-hunt is talked of,

of urgently insisting—"Do, do!" And do it fairly, without favour or partiality; go and see *all* the rose-gardens, or as many of them as you can possibly visit. Live on bread and water for a week and work double tides, rather than fail to pay your court to the Queen of the Bourbons, and The Queen, surrounded by their ladies of honour. It is worth while putting oneself a little out of one's way to inhale the perfumed breath and to gaze upon the blushing though highly-rouged cheeks of Madame Laffay, Madame Desprez, Lady Alice Peel, and the Duchess of Sutherland, and to be interested by the tenderer, paler complexions of the Duchess of Orleans and Mrs. Bosanquet. The Souvenir of Malmaison will make you sigh with an emotion in which pleasure predominates over painful recollections. Then, there are little round-faced pupils, to whom you might wish for an introduction, but who are still in their nursery—they have not yet come out. Some of these, if you treat them well, will, supply you with bouquets nearly all the year round. But leaving their budding innocence in retirement for the present, start as soon as you can in search of a perfect rose, hoping one of these days to meet with, as we are promised, a Yellow Moss Perpetual; and give no just cause to Paul and Son, Wood and Son, or Lane and Son, or Mitchell, or Clark, or Grier, Bircham of Hedenham, or others, for whose names there is no room in a brief prose rose-epic, to regard each other with sour and jealous looks, because you have favoured some with your presence and have slighted their competitors. Make a complete rhodological tour, as far as lies within your power.

You will find groups or classes of roses, with very distinctive characters, which may be divided into Late-Spring and Summer Roses, and Autumnal and Winter Roses. Of the first, we have the *Provence* or *Cabbage Rose*, which is no other than the *R. centifolia*, or Hundred leaved Rose, from the number of its *petals*, not its leaves. Of this there are several varieties in point of *colour*. The *Queen of Provence* is paler and more lilacky than the common sort; the *Scarlet Provence* is merely

a carmine-tinted flower. The *Unique* is a white Rose of extreme purity, probably proceeding from the Cabbage Rose by what is called "sporting," i.e. when a sucker or a branch of the original plant changes its character without assignable cause. These "sports" are only perpetuated by budding, grafting, or layering, and even then are far from permanent, showing a constant tendency to revert to the original type. Thus, on the same branch of the *Unique* you will sometimes have a completely red flower by the side of a white one. The *Striped Unique* has the petals exquisitely striped with pink, like those of a delicate tulip. This too, is not to be depended upon for stability of character. Sometimes a bloom will come half white and half striped, sometimes half red and half striped, and occasionally half white and half red, without any stripes at all; and that perhaps on the very same bush. The *Crested Provence*, sometimes erroneously called the *Crested Moss*, is very beautiful before it is fully expanded. It is in all respects like the Cabbage Rose, except that on the outer division of the calyx there grows, not moss, but a kind of stiff irregular fringe, very artificial yet tasty in its appearance. It looks as if some short, stiff, bright green seaweed had taken root outside the bud. Of course this supplemental ornament is lost to sight when the Rose is fully expanded. The above extremely pleasing varieties warn us how careful we ought to be in rejecting plants growing in old gardens, before we have seen with our own eyes what they actually are. The *Crested* is said to have been discovered growing from the crevice of a wall in Friburg, Switzerland; and the *Unique* was found by Mr. Grimwood, then of the Kensington Nursery, in the garden of Mr. Richmond, a baker, living near Needham Market, Suffolk. Mr. Grimwood asked for a branch, but obtained the entire plant, which was willingly given him. It ought to be added, that the following year Mr. Grimwood, to his credit, made Mr. Richmond a present of a handsome silver cup, on which was engraved a figure of the rose. Two exquisite and delicate varieties, the *Bath White*

Moss and the *Pompon Moss*, owe their discovery and preservation to persons who knew how to make use of their eyes, and had profitably studied "The Art of Seeing." There can be little doubt that many beautiful unknown flowers are trampled under-foot and destroyed, without an opportunity of displaying their merits, simply because some careless landlord, gardener, or in-coming tenant, happened first to behold them when they were not in bloom, or in leaf.

The Cabbage Rose has produced dwarf varieties; how, or where, we do not know. The *Rose de Meaux* and its still more diminutive sister the *Pompon* (Little Trinket) Rose, are miniatures of the Cabbage Provence, with the advantage that they bloom earlier, and so make elegant pot-plants for forcing. *Spong's Rose* is intermediate in size and stature between the *Rose de Meaux* and the Cabbage, but most resembles the former; it is cupped, with a full pink centre, the outer petals being lighter, and makes a beautiful little standard, budded low. The *Dwarf Burgundy* is another member of the same family, with cupped, deep-red double flowers, but a much less abundant bloomer than either of the above. The *White Burgundy*, similar except in colour, is less frequently met with. All Dwarf Roses must have a free rich loam; they have a great tendency to send up young wood annually from roots, which young wood, principally, but not exclusively, bears the blooms of the following season, while the old wood becomes barren, sticky, and half-dead. Hence it is better to cut out the wood which has once flowered, without waiting for its natural decline, and also to remove the plants every second year, pruning them at the same time on this principle. To be sure, the treatment is a little troublesome; but it is the only way to prevent Pompons and Burgundies from getting rough and shabby. For the same reason, standards of these Lilliputian Roses, though very pretty, are apt to be equally short-lived: they bloom well *once*, and then they go dead, unless they can be made to throw out vigorous young wood from the point where the original bud was inserted.

Of the *Moss Rose* we are ignorant whence it comes; we only know that it is nearly related to the Cabbage Provence, and that everybody admires it. The *Bath White Moss* greatly resembles it, with the exception of colour and a much more delicate habit. It is largely grown for the American market, where it is highly admired; but where it is probably even more short-lived than with us, for we can only keep it going by continually budding it afresh. *Moss Unique* is said to have been obtained from a *Uniquis* branch producing flowers adorned with moss. The branch was budded from, and the plants so propagated produced flowers retaining (with more or less certainty) their mossy characteristic. The *Blush Moss* is a beautiful rose, somewhat less fragile in constitution than the White Bath. The *Crimson Moss* is handsome and vigorous; sometimes called the *Tinwell Moss*, from having been raised at Tinwell, in Rutlandshire. The *Moss Pompon* is a charming little pet, which requires every care to keep it in tolerable vigour. *Zoe*, or Mossy Partout, is so called because the leaves even, and the stalks and stems, are productive of the mossy excrescence. *De La Fleche* is the nearest approach to a *Scarlet Moss*. There are other Moss Roses of the same type, but these are among the best.

Another set of Moss Roses have more semi-double flowers, a more rampant growth, a tendency to flower twice during the summer, and to produce their bloom in numerous clusters. They are likewise well covered with moss, and are more beautiful in the bud than when full-blown. They have hardly a right to the title "Perpetual," although the *Perpetual White Moss* and the *Perpetuelle Mauget* (bright rose and handsome, raised from the *Crimson Perpetual*) figure on the lists. Good mosses of the same character as these, without any pretensions to perpetuity, are *The Luxembourg*, deep crimson, of vigorous growth; *Celina* or *Selina*, like the preceding, but darker in tint; and *Comtesse de Noe*, bright crimson, and purple, of good form and vigorous growth, with handsome dark-green foliage. The moss

roses are budded as easily as others; only the spines and moss on the bark in the immediate neighbourhood of the bud, must be rubbed off by gentle *side* strokes, while the cutting from which they are taken is still fresh, and just before the operation is performed. They require a well-drained, deep, rich loam, which, at the same time, is never subject to drought and scalding, with plenty of sun and air. Under such conditions, the robust varieties will luxuriate vigorously. Mr. Paul describes a pillar of the old Red Moss attaining a height of fifteen feet, and although not well furnished with branches the whole height, some of the shoots of the previous year's growth were above six feet long, and the main stems had swelled to a considerable size. It is true that such gigantic stature is above the average, and is owing to the combined effects of soil, situation, age, and the fostering care of the cultivator; still, quite within the attainment of ordinary gardeners is a collection of Moss Roses, formed into pillars varying in height from six to eight feet. The above-mentioned kinds afford sufficient materials for accomplishing the purpose.

The present Movement in the Floral world.

WE have so many subjects brought under our notice at this moment that we scarcely know which is the most pressing, but if to believe some of the publications of the day, great changes are taking place in the Floral world. There has been a good deal of acrimony created by the National Society which one well known writer has condemned from the first, and denounced in language peculiarly his own, not hesitating to say that it was established to facilitate a trade in worthless novelties, and accusing respectable persons of joining it for sinister purposes or in ignorance of its real design. How much of our contemporary's attack was deserved, it would be difficult to say, but among the changes taking place we learn that a most important alteration has

taken place in that society, the respectable members have been roused, the members who had hitherto ruled and with their leader did as they pleased, have been thrown into the minority and there is hope that the society will become honest and useful. The Societies' early opponent says "they should change the very name, for *National* has been identified with every thing base and degrading." Rumour has been busy upon the subject of an annual that was brought out four or five years ago, by Mr. Edwards, having been offered for sale, but that as nobody would buy it, there was every possibility that it would be heard of no more. If so, another great cause of irritation will have been removed. If we look to the great exhibitions, near London, the Horticultural, the Botanical, and the Crystal Palace, over whose schedules and appointments a destructive influence has been said to prevail, and has been most unmercifully dealt with by the Gardener's Gazette, there is still room for congratulation in the probable removal of the obnoxious parties from the list of censors excising a little independence in drawing up the schedules. Until it was pointed out the councils of these great concerns were not aware that they were pandering to a set of itinerant exhibitors, who influenced them to make such great prizes as these honest gentlemen could win, particular as it paid them well to use questionable means. Lastly; we may mention that a large and influential class are determined to resist the showing of flowers, that have been duped, and to discourage the admission of sticks, ties, wires, or other supports. At the Bermondsey Society, a class of six Chrysanthemums is to be exhibited without stick, tie, wire, or other support, in six inch pots, the prizes being 15s. 10s., 7s. 6d., 5s., and 2s. 6d., and we think other Chrysanthemum Societies will do well to follow the example. At all events, every thing that tends to encourage fair showing shall have our warmest support, and we need not say that we shall warmly advocate any measure that will tend to exalt the science of Horticulture, and promote fair and honourable dealing.

Xeranthemum Everlasting.

THERE was a time when these flowers were valued highly on account of their lasting qualities, it being well known that they will retain their form and colour for years after they are gathered and hung up. The great variety of hard or horney petaled flowers that now form the winter nosegays have become quite an article of commerce, and the natural variety is greatly increased by artificial colouring. Nevertheless, without these helps there are several very pretty kinds which are easily cultivated, and serve well to enliven the flower vases and cups in the depth of winter. There are several varieties and species, and all of them useful and good Miller mentions six:—*Xeranthemum Annuum*, *X. Arintale*, *X. Speciosissima*, *X. Retortum*, and *X. Seramoides*. Of the first there are purple and white, single and double, and these have been grown a good deal in the Channel Islands. The first sort bears a large yellow flower, and rises with a shrubby stalk three or four feet high; the colour of this kind is very bright and the flowers very showy and brilliant, but they are not produced very numerously. The culture of these plants is simple, the seeds are sown like other annuals in a slight hot bed in the spring, and when they are up they are watered and kept clear of weeds until they are large enough to pot or plant out. They may be planted in the borders or beds a foot a part at the least, and then left to bloom; or as they are capable of being brought earlier in bloom, they may be sown in the autumn, potted like ten weeks' stock, and kept in the frames through the winter; they will then flower much earlier and stronger, the flowers should be gathered while perfectly bright, and soon after they are opened; if they remain long in bloom the seeds begin to swell, and the flowers will in a few months come to pieces, but if gathered when young they continue whole and quite brilliant.

for years. All these sorts will grow in the open air in the summer time, and will succeed with the treatment of most tender annuals, though some of them are far from tender. Seeds may be had both of English growth and imported, and a few should always be sown in a garden of any size for keeping when dry, if not for their present appearance. The Cape species require to be grown in a green-house, and they only succeed well with very careful treatment; they do not require to be kept very close. With regard to the dyeing process, it is my opinion that it converts the real to an artificial flower, while retaining its colour and the natural form it is curious, but the instant the strong colouring is upon it the charm is gone, and gay as the the novelty may appear, we might as well put up with the regular artificial flower.

J. THOMPSON.

St. Lawrence, Jersey.

Science of Floriculture.

IT is a very erroneous notion though entertained by many that the Science of Floriculture is merely the art of cultivating flowers; it occupies a much wider range. The improvement of flowers which comprise the raising of new varieties better than we already possess. The culture of them after they are raised may be accomplished by any ordinary gardeners. The only true method of appreciating floriculture as a science is to look at the original weed, for such our best flowers have been, and then compare them with the splendid specimens now in cultivation; look at Geraniums, the Cinerarias, the Verbenas, the Fuschia, the Phloxes, the Hollyhocks, the Pansy, the Antirrhinum, the Delphinium, the Rose, and almost every other Florist's flower of the last century, and at

many of them only thirty years back, and contemplate the advance that has been made in their forms and colors, you will then have some idea of "The Science of Floriculture," for to that do we owe every advance. From 1832, when the papers on "The Properties of Flowers and Plants" were published, after being proposed, discussed, and approved by the Metropolitan Society, there was a rapid advance; this is accounted for by the fact, that as an ideal model of perfection, was given for every flower, every raiser of seedlings knew at once what to try for, he ceased to cultivate varieties that made no approach to it, and out of hundreds perhaps of seedlings saved only such as came nearer than the rest towards the form required; whereas for years no one had a definite aim, but whatever was different to the varieties in cultivation, was sure of a name, be its form what it may, worse or better. There is too much of this spirit now among rose growers; many of the new varieties are infinitely worse than some we already possess, yet are held up as fine novelties, exhibited in bunches that nobody may recognize the want of form, and sent out with impunity. Let us state a recent example.

Ab uno disce omnes.

THE ROSE, *General Jacquiminot*, containing a flower of good colour, has been called the finest rose in cultivation, and it has been shown in such bunches that its true character has been concealed. In many things people are allowed to differ in opinion, but we will not admit a difference in the approach of a flower towards perfection. We do not dispute any man's right to question the propriety of the model set up in "the Properties of Flowers and Plants," but we must insist upon a reason for any dissent even here, because the whole floral community have acquiesced in the excellence of the ideal models. Founded on what a rose ought to be, we enter our protest against the claims of *General Jacquiminot* to the regard of the Florist. He

has but one point in its favour—its colour, but it has every fault that can be concentrated in a rose; First, it is loose, and without even an approximation to the form of a good flower: Second, it is only semi-double, and exhibits all the yellow stamens of a large ugly centre the instant it opens: Third, the flowers such as they are, crowd each other into an ugly shapeless bunch. Fourth, the bud is ugly in every stage, and if any body who understands the proportion of a rose, can seriously call this a good flower, why we have no judgment in such matters. A man may make a very fine selling description, if he only says, “splendid crimson scarlet, and abundant bloomer,” but it is a rose that we should never allow to occupy in our garden. There is a good deal too much carelessness among our growers, and certain it is that the only qualification for a new rose, to drag it from its seed bud, and insure a name at present required by the French and Continental raisers, is, that it shall be different to what we possess, no matter how much worse, nor how deficient it may be in the properties that contribute perfection, let us however congratulate the public on their improved taste. If the grower puts out an unworthy novelty, it may last till the buyer sees its bloom, but not all the sophistry of all the dealers can make him keep it. Mr. Revis and Messrs Lane, certainly try all the new roses, before they recommend any, so that so far as the taste of these growers goes, they check the wholesale inundation of novelties from the continent, and notwithstanding the influx of too many that are worthless, the character of Rose Collections has wonderfully advanced. In fact, a first-rate collection of roses, raised within the last quarter of a century might be got together, and some hundreds of worthless things could be spared. We must not forget however that those varieties which like the Moss and Cabbage, bloom for a month only, now come much nearer to perfection than the continuous bloomers, and for the exhibitions of June and July they are required; for showing single blooms many of them are splendid, while the *Tea, Hybrid*

China, Noisette, and Bourbon Roses are not all adapted for showing single blooms, though some are beautiful; still, the public demand so generally runs upon the best formed flowers, that the advance of a true taste cannot be denied. Nobody likes to see the yellow centre to a rose, and if unfortunately people get hold of such, they take the earliest opportunity of changing in throwing them away, or of budding better varieties on them. There is strong evidence that the public taste is in advance of dealers' stocks! We have known growers to discard scores of varieties for which the demand had altogether ceased, because of their deficiency of properties that are on hand. One of the strongest proofs of the advance of floral science is the constant effort of raisers to produce excellence, as evinced by the numerous proportion of hybrids and new varieties in all the catalogues, and although we have to condemn perhaps three out of four of the annual importations, every year adds something worth growing, and we ought to feel indebted to those growers who import and buy every thing new, and confine their after dealing to those only which they deem improvements. We do not agree with all their tastes, and we are obliged occasionally to differ altogether from their opinions, nevertheless if we saw the rubbish which they have grown, to select so few from, we might make great allowance. Those they do recommend may be fine compared with the number they reject; these we do not see, but our mind is always fixed upon the ideal model of perfection, the only means of comparison we can apply, and unless a flower makes some approach to it we value it but little. Roses however, must be divided into two classes; one for garden ornaments, to be looked upon as flowering plants and trees; the other, as Florists' flowers, without any regard to their habit. The former comprises all those varieties that are constantly in bloom, the other only such as flower a month. The former are placed in borders, beds, and places where they form a permanent feature, the other should be grown where they are not wanted for garden ornaments: we must

have the well formed portion to get at them, we can then visit them during their flowering month, and leave them to themselves the eleven months they do not yield a solitary bloom. For the sake of continuous blooms, we can put up with roses of any size and form, so that they do not shew us those seedy yellow centres. But there are some very splendid. The perpetuals, Hybrids, Chinas, Tea, and Noisettes, do not however, until they are well established, continue to bloom, so long as we desire. The connoisseur of roses must not expect too much the first and second year of planting, because until the roots have firm hold in the ground the plant will not have strength to continue its growth and bloom uninterruptedly. When however they fairly root into the soil, and that agrees with them, they will never be without flowers until the frost cuts them off, and even then it will be only the forward blooms that suffer, a few fine days will bring forward the buds which have not perished, and if the weather be mild we may gather a bunch of roses at Christmas. Roses, therefore, notwithstanding the cupidity of some raisers, who put forth too much rubbish, exhibit manifold proof of the rapid advance of the Science of Floriculture.

On the Culture of the Camellia.

[From the Horticultural Cabinet.]

THE most successful and generally adopted method of propagating this beautiful family is by inoculating or grafting: by this means each variety is perpetuated. New varieties are only to be obtained from seeds, and as these seldom ripen in any quantity in this country, the propagation of new varieties is consequently a matter of some importance. As in most cases it is from single flowering plants that seeds are to be expected, although sometimes the semidouble flowers also produce them; the common single red is

the most prolific in affording seed. Sometimes seedlings so obtained are used only for stocks whereon to work other rarer kinds. Stocks, however, are for the most part obtained by nurserymen from layers of the common single red, which they often plant out in pots for that purpose, or from plants or cuttings. Camellias are sometimes budded, but for the most part are either grafted or inarched, and in either case, the process of tonguing is dispensed with, as weakening the stock, and that mode termed side grafting is preferred. It may be observed that of all the stocks for this or any other purpose, those obtained from seeds are the best; but as the seeds are two years coming up, cultivators seldom wait. Sometimes the double Camellias are obtained from cuttings; but this is a tedious and precarious method of increasing them.

The proper time for grafting or inarching Camellias is the spring, when the plants have done flowering and are beginning to grow.

The time that elapses before an union of the scion and stock completely takes place is various in different sorts, and more particularly in regard to the state of health and vigour in which the plants may be, as well as the favourableness of the season. Observation alone can dictate when the clay and bandage of matting should be removed; there is an evil in allowing either to remain on too long. Camellias will form an union when the branches are of considerable size, and very large plants may be speedily formed by inarching several whole plants upon one common stock. This process is very prevalent round London, and when the operation is perfectly performed, and the plant cultivated, specimens of large size may be expected; certainly a few large specimens of this plant, where there is convenience for keeping them, are better than a number of small ones, which takes up the same room, and never can produce so pleasing an effect.

In Mrs. Loudon's "Gardening for Ladies," we read, "Camellias are now frequently grafted in a manner first practised in Belgium, but afterwards greatly im-

proved in the nursery of M. Soulange Bodin, at Fromont, near Paris, and which has the advantage of producing flowering plants much sooner than by any other plan. This mode of grafting, which is called *graffe etouffee*, may be practised at any season, and on a stock of any age, from the cutting of a year old, to the long-established plant, provided it be healthy and of sufficiently-small size to be grown in a pot. There are two modes of performing this kind of grafting, the first which is called *la greffe etouffee en fente*, and which is a kind of cleft grafting. The head of the stock is cut off close to a leaf, which has a strong healthy bud on its axil. The cut is made sloping upwards to the leaf; and on the preservation of this leaf and bud, a great part of the success of the operation depends. The stock is then split, in face of the leaf and bud, to a depth equal to two-thirds of its thickness, and the scion, which has been previously cut with a sharp knife into the shape of a wedge terminating in a narrow point, is inserted. The heart of the scion stock, and that of the scion, are united as closely as possible, and the two are tied firmly together; the wound in the scion, where the head was cut off, being covered with pitch to prevent the possibility of any moisture entering the wood, though no pitch is allowed to touch the point of partition between the scion and the stock, lest it should prevent the uniting of the bark. As soon as the operation is finished, the pots containing the stock must be plunged into a bed of tan, lukewarm if it be in the spring, and hot if it be in winter, and covered over closely with a mat or hand-glass. The glasses ought to be taken off every second day and wiped, as too much humidity will make the young plants damp off, and the glasses may even be left off for an hour or two occasionally, if the plants appear too moist. The second mode of performing this kind of grafting, and which is that generally practised in autumn in Belgium, is called *la greffe etouffee en placage*, or *la greffe des Belges*, and is a kind of side grafting, or rather of inarching. It consists in cutting off the head of the stock, or the end of one of the

branches, in a slanting direction, leaving a leaf and a bud above the cut on the higher side, and then cutting the scion into a slanting shape, so as to fit the wound in the stock exactly, and binding the two closely together with a strip of bast matting, but without using any other covering. As soon as the operation is finished, the pot containing the stock is laid horizontally on a bed of dry tan, or on a bed of dry moss, the branches lying on the surface, and the pot being half buried in the tan or moss; the grafted part being covered with a bell-glass, stuffed round the bottom with the moss or tan, so as to prevent a particle of air from entering. This close covering is kept on for a fortnight, three weeks, or a month, according to the season; the end of which time, the graft will be found perfectly united to the stock. Air is then admitted to the graft by degrees, by first lessening and then removing the moss from the glass. The glass is afterwards taken off, and the pots set erect."

The great points to be attended to in this mode of grafting are, giving the plants bottom heat, and covering them closely, whence the name of *graffe etouffee*, as the plants appear almost stifled for want of air. According to both modes, as soon as the graft has taken, the leaf and bud of the stock, above the insertion of the scion, which was left on to draw up the sap, are cut off, and the plant is then in a fit state to be removed to the greenhouse, or any other place where it is to flower.

The Camellia is a plant that requires to be well supplied with water, and yet it cannot endure stagnant moisture about its roots: this will soon prove the death of the plant. When the plant is grown in pots, the drainage should be abundant, that is, the pots should be nearly a quarter filled with potsherds or gravel. The most preferable soil for the Camellia is peat earth and sand, in which a small portion of vegetable mould and charcoal may be mixed; that is, if it be desired to possess plants of a very luxuriant growth. It is advisable to pot the plants high, so as to permit the collar of the plant to be completely above the rim of the pot. It is a bad practice to allow saucers to the pots, and this rule

should be observed not only with Camellias, but all other plants. It is true that watering plants in rooms without saucers is the cause of considerable damage to the furniture, but the plan ought to be invariably adopted, where saucers are used, to empty them of the water as soon as it has drained through the mould. Particular care should be taken to give a copious supply of water to the plants every day, during the time that the buds are swelling; and if this process be neglected, considerable risk is run of the buds dropping off. The watering may in some degree be dispensed with, when the flowers begin to expand, but not wholly so, but only supplied in a more moderate quantity. On the other hand, when the plants are throwing out their young shoots, recourse should be had again to a copious supply of water; when they have ceased to grow, it will then be necessary merely to water them once or twice a week, until the flower buds again begin to swell. It would be advisable during the time that the plants are growing, to set them out in the air, and the leaves syringed all over two or three times a-week. Particular care, however, should be taken, not to follow this practice during the time the sun is on them, or at all events, not to place the plants in the sun whilst they are wet, as the rays of the sun, acting on the water, will act as a lens, and actually wither up the leaves. It must be particularly observed that the roots of Camellias are in general rather weak, and consequently are easily injured; at the time therefore, when the plants are repotted, the most particular care should be taken, not to bruise the roots, and to deprive them of all those that are in any way injured. If, previously to repotting, or turning out the plants, no white roots should appear on the outside of the ball of the earth, the earth and decayed roots should be shaken, or cleared away, till the good roots be seen, when a careful examination should be taken of them, and all the bad parts cut away. The plants should then be repotted, in pots not exceeding by more than an inch the diameter of the ball of earth left round the sound roots; and they should

be well drained at the bottom with very small potsherds or clean gravel. Small Camellias should not be shifted oftener than once in two years, and large ones, that is, those above two feet high, not oftener than once in three or four years; but if the earth in the pot appears to have sunk, a little vegetable mould may be laid on the surface. The usual time for shifting Camellias is just when they have done flowering, before they are beginning to send out their young shoots. When planted in the free ground in a conservatory, they will not require any other care than regular watering, and syringing the leaves once or twice a-week. When planted in the open air, the roots should be carefully protected by straw during frosty weather. The hardiest kinds, and the most suitable for planting in the open air, are the single red, the double red, and the double white. The tenderest of the common kinds are the beautiful apple-flowered variety (*Camellia sasanqua*), and the single variety of this species, the flower of which resembles that of the tea-plant. Camellias are very often infested with insects, particularly a kind of black aphid; the only remedies for which are fumigation and constant syringing. The leaves of Camellias should be always syringed on the under side, as well as on the surface, as they curve inwards a little, and thus afford a shelter to insects, from which it is very difficult to dislodge them.

Laying out a Small Garden.

NOW many times do we hear the question, How shall I lay out my garden? The Rev. H. Burgess, of Blackburn, has written a most instructive and excellent paper on the subject. "It happens," says he, "every year that an immense number of plots of ground are being laid out as gardens for the first time, or are remodelled, on coming into the possession of more fanciful or even more tasteful owners.

Now this laying out is an important matter, on which a few remarks will not be thrown away. We are constantly hearing the observation made by the owners of gardens: "I regret that when I arranged this piece of ground, I had not turf here or plant a hedge of laurels there," or remarks of a similar character, all implying that sufficient forethought was not employed in the construction of the garden. If therefore you have just become the tenant of a new house with a rood or even a few poles of ground, or if you are so dissatisfied with your old garden that you have determined to remodel it, allow me to suggest the following principles for your guidance.

First decide to what extent you mean to patronize flowers or vegetables respectively, that you may appropriate your available space, to these different purposes in their destined proportions. But unless you have ground enough to supply your family with culinary productions, give up the kitchen garden entirely, except a corner for herbs and salads, and let an elegant taste prevail over a very questionable utility. To see a small piece of ground which might be made a gem of Horticultural beauty devoted to cabbage, which during the whole season may be worth five shillings, is very lamentable, and I hope to dissuade some of my readers from this very common practice. If you have room for vegetables so much the better, but if you are very limited in space, determine to patronize the green-grocer, and to adorn your dwelling with those beautiful productions which will delight and repay yourself for all your labour, and perform an important part in the education of your children. The natural taste of the little ones will revel in the flower garden, and their budding minds will involuntarily acquire an expansion and a love of nature from the objects around them.

Having fixed upon the spot for the flower garden, next decide on the plan, that is where you will have your paths, which shall be turf, and which border or beds. I confess I entertain a strong dislike for much gravel in a small garden, and especially for a multitude

of little beds, surrounded with box and intersected by narrow labyranthine paths. Any thing very peculiar, is unsuitable for little plots of ground, and the aim should be to get as natural and verdant an appearance as possible all the year round, have a good hard gravel path, wide enough for at least two persons to walk abreast, which shall enable you to get round your floral estate in wet or damp weather, but let all the other beds be surrounded with turf. The difference between a garden with much grass and one without any is wonderful, in the former case every flower is set off, like a precious stone. In an appropriate setting, besides the immense advantage secured in winter when few flowers can be expected. Of course you will take care that the parts intended for paths or grass plots, shall not be dug into except for the purpose of removing good mould, from the former to be replaced by rubbish.

It is a great point to let turf and gravel be laid on an undisturbed subsoil, for however you may tread and ram down that which has been dug into, the first heavy rain will alter the level and much labour will be the consequence.

Let some small beds cut out of the turf be devoted to Florist's Flowers, or bulbs in spring and exotics in summer. The beds or borders nearest the walls should be planted permanently, taking care to secure the sunniest parts of the wall for appropriate climbers, and those more shaded may be hidden by evergreens. Let the walls of the house be covered with climbing roses and other adornments too numerous to mention. If you have space enough let a working compartment be shut out from the garden by evergreens, or the operations of forcing or other works, which render a dung bed and frame necessary, if you are not limited as to expense, these counsels will not be necessary, as a greenhouse and heating apparatus will render any such unsightly things as hotbeds quite out of the question.

A good garden is often spoiled by the approaches to it, or by the vicinity of outbuildings. In many instances servants have no access to the back regions but

by coming across the garden. All such anomalous and awkward arrangements should be avoided in building new dwellings, and remedied in the best possible way in the case of old ones. It is surprising what a general good effect may be produced in a confined place by a judicious planting, and by planting what ground you have as "one harmonious whole." In proportion as gardens are small the difficulties increase, but taste will overcome all obstacles. In the neighbourhood of London, at Brixton and Tulse Hill for instance the little plots of ground in front of the houses show what may be done by a judicious adaptation of vegetation to a confined space. Many of those front gardens are illustrations of the principles laid down in this paper.

New Chrysanthemums,

1859.

WE promised in the last number to give in our next the names of a few new seedling Chrysanthemums that will come out next spring, the following are the names and descriptions of what we consider to be the best.

LARGE VARIETIES.

Brilliant, splendid bright yellow.

Vue de Conde, lilac and white.

Golconda, golden yellow.

Golden Queen of England, Gold, a sport from Queen of England, the same habit and size, only gold colour instead of blush.

Globe, white.

Glory, pale lilac.

Julie la Quaneice, dark brown free and fine.

Madame Clos, rose and carmine.

Mount Vesuvius, red cinnamon, very free bloomer.

Prince Albert, dark red, free and fine.

Sulphurea, superba.

Virgine, fine pure white.

POMPONES.

Baron de Adswear, white, tipped cherry

Croselle, red and yellow

Golden Cedo Nulli, gold, a sport from white *Cedo Nulli*, the best variety grown

Jaune Marguerite, golden yellow

Madame Lealereque, chestnut, very pretty

Mrs. Dix, white and rose, free and good formed petals

Marionette, fine yellow

Marmouset, rose and lilac, fringed anemone

Meteor, light, tipped cherry

Nanon, fine, late yellow

Signora Pepin, bronzed lilac with yellow centre

Ville Frauche, creamy, white tipped with rose

We have seen a splendid new seedling of the large kind, good habit, and well formed petals raised this year by Mr. Holland of Isleworth, from a 2s. packet of seed purchased of Mr. Glenney of Fulham, this satisfies us that good seedlings may be raised in this country by purchasing good seed, as we believe there was not forty plants grown in the batch this was selected from.

T. G.

Reviews.

GLENNY'S GARDEN ALMANACK for 1859 contains as usual a large amount of sterling information, some of which is precious as gold. This Almanack is the oldest of any Garden Almanack extant, it being the 22nd issue, and contains a Calendar, trite and well written. An article entitled "The Frauds of Horticulture," in which the writer denounces the New Dahlia, &c., with the zeal of a Roebuck. The lists of Flowers for amateurs are on a large scale, as will be seen in the List of Camellias, &c. which we have given on another page. It is decidedly an invaluable shilling handbook, and we have no hesitation in saying that no

purchaser will be disappointed. The publishers are Messrs. W. Kent & Co., but if any difficulty should occur, we shall be happy to send a copy for twelve stamps.

THE GENERAL PRICE CURRENT, *issued by the Plymouth Seed Agricultural Implement and Manure Company.* This is perhaps one of the largest seed establishments in the world, and the above is the title of the catalogue. The Calendar, (strictly kitchen-garden,) is well written, and will be found of service to every lover of culinary vegetables. The Lists of New Annuals are also very good, and the Collection of Garden Seeds sent out by the company are really very good and also very cheap, while the instructions for sowing the same, if strictly followed out, will insure a good crop. The Price Current may be had through any Bookseller.

A FEW GOOD AZALEA INDICAS.—Admiration, Bealil, Beauty of Europe, Beauty of Reigate, Broughtonii, Caronata, Criterion, Crispiflora, Double Red, Empress Eugenia, Eulalia Van Geert, Extranea, Gem, Iveryana, Magnificent, Perryana, Duke of Devonshire, Petuniflora, Prince Albert, Queen Victoria, Rosea Punctata, Rosy Circle, Symmetry, Triumphans.

A FEW GOOD CAMELLIAS.—Alba Pleno, double white; Alexina, white, pink stripe; Albertus, carnation striped; Chandlerii, red and white, Chandlerii Elegans, flesh; Corallina, dark red; Commenza, red; Countess of Orkney, dove; Candidissima, double white; Colletii, red and white; De la Reine, large white; Fimbriata, fringed white; Hendersonii, pink; Imbricata, red; Marchioness of Exeter, flesh; Mathotiana, red; Ochroleuca, cream; Picturata, white and pink; Storyi, pink; Teutonio, white and red; Halphida, pink; Jubilee, white and pink.

A FEW CHOICE HOLYHOCKS.—Annie, Canary, Empress, Lilac Queen, Lizzy, Lady Middleton, Memnon, Miss Ashley, Purple, Perfection, Queen of Buffs, Queen of Whites, Queen of Fairier, Saturn, Septre d'Or, Walden Masterpiece, Mont Blanc, General Windnam, Omer Pacha, Comet, Cerise Unique, Walden Gem, Hon. Mrs. Ashley, Beauty of Walden, Joan of Arc, Pourpre de Tyre, Queen of Beauties, Standard, Rosa Bonheur, Queen of Yellows, Cloth of God, Sir Colin Campbell.

Chrysanthemums.

LARGE FLOWERING VARIETIES FOR EXHIBITION.

THE Chrysanthemum is very easily cultivated if any one will pay proper attention, for it is quite possible, if skilfully cultivated, to have flowers six and even seven inches across, without any great coarse eyes, any eyes taken out, or even any curling of petals, &c.

For this purpose, suckers should be taken as early as can be obtained. The latter end of October or the beginning of November is the best time. If you want fine flowers you must get your plants established early, and the wood ripened before the flower buds are formed, for if late before growth is made, you are very liable to have coarse and one sided flowers. The suckers ought now to be getting established two or three in a large sixty pot, and put into cold frames or a greenhouse. If for large plants to be formed on single stems, only allow one plant for each pot, and encourage the growth as much as possible, so as to get the plants stopped early, and the wood ripened.

Use good turf loam, cow-dung, leaf mould, and silver sand, and plenty of drainage. Plants in frames must be well covered up if the weather proves frosty, but if mild give air at favourable opportunities. There are a many persons who would very likely wish to commence growing, and I therefore give a list of the best twentyfour. Annie Ferrier, Alfred Salter, Anaxo, Aregine, Aristee, Beauty, Defiance, Dupout de L'Eure, Etoile Polaire, Formosum, Lutea Formosum, Hermine, Madame Lebais, Madame Milliez, Madame Andrey, (not Andrew) Nonpariel, Plutus, Queen of England, Ramona, Stafford, Stellaris Globosa, Themis, Trilby, Vesta.

R. OUBRIDGE,

Stamford Hill, Stoke Newington.

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POMPONES CHRYSANTHEMUMS,

For Specimens only.

If not yet started, no time should be lost, in taking the tops from the young shoots clearly above ground ; in removing the lower leaves, be careful to secure the eye with them, to prevent them from throwing up suckers during cultivation. They will strike freely on a top shelf in a cold greenhouse, but with bottom heat the process is much quicker, they require attention to prevent them growing too rapid, as the slower the growth in starting the better, and the grower will be able to secure more breaks from the first stop, which should be made when the plants have attained the height of from five to nine joints. Those that have been started, and have struck should be potted off, using clean pots, with a compost three-quarters loam and quarter leaf mould, or any other light material, with sufficient sand to take the water through, keeping them close for a few days; afterwards gradually inure them to light and air, at every opportunity bear in mind, always to tilt the lights from the cold winds. As to improvements in varieties to those already out, little can be said, the leading kinds were published in the last number, and it would be useless for me to repeat their names, with the exception of Mrs. Dix, a noble white flower with rosy edgings, and quite new, and which I understand is to come out this spring. Of course there are many more new kinds, and those fond of novelty should not lose any time in giving their orders.

I should recommend those who have not yet added the last year's favourite, Madame Foulds to their collection, to do so, although several unsuccessful attempts were made to bring this flower out. I hold that in point of quality of the bloom, it is the best yet raised.

SEEDLING CHRYSANTHEMUMS.

To the ardent lover of flowers, a batch of seedlings is at all times a great stimulant, not merely to the

proper cultivation of the plants, but from the expectation of a happy result, as I have, myself experienced. I procured a shilling packet of seed from Mr. Glenney, of Fulham, in February, 1858, and sowed it on the first of March, and bloomed forty-seven out of fifty plants, which will put aside the mistaken notion of seedling Chrysanthemums not blooming the first year. One which has been named Miss Augusta, was the cream of the flock, and was pronounced by competent Judges, to be a first class flower in quality, the petals were broad, smooth, and blunt, and of a pale straw colour, and when fresh having a violet scent. In conclusion I may observe that in a garden of small dimensions, a few seedlings may be grown, as a backing for flower borders, or between shrubs, with little care or expense, thus affording a chance of the same success that happened to myself.

JAMES HOLLAND,

Gardener to R. W. Peake Esq., Spring Grove, Isleworth.

Calendar of Operations.

AURICULAS.—From the 12th to the 20th, weather permitting, the pots should all be taken out of the frame, and put into a shed, or some other convenient place, where they may all be examined one by one, the green mould taken off the top, and the pots filled up with a little sweetened stuff, previously prepared for the purpose. Before putting them back into the frames, the shelves should be well swept and cleaned. The lights must be kept shut at night, and a thickness of matting laid on, until the end of the month, but not later, unless the frost be very severe.—JOHN HEPWORTH, *Lea Bridge, Leyton.*

CUCUMBERS.--The production of the Cucumber at an early season of the year is an object of considerable emulation amongst amateurs, and there are some who continue to grow them all the year round. The beginning of this month is a very good time to commence the rearing of the plants, either upon beds composed of dung and leaves, mixed, or upon faggots, to be heated by means of dung linings. For this purpose, such a quantity of good fresh dung should be procured as will

be sufficient, after being fermented, to form a bed, about five feet high at the back and four feet in front, upon which to place a one-light frame, which will be sufficient for the purpose of rearing seedling Cucumbers. The dung for this purpose should be under the process of fermentation a sufficient time to allow the fiery heat to pass off. It should be frequently turned and well mixed, so that the whole body will heat equally when put up into the bed. In building the seed bed, the dung should be well shaken with a fork, and regularly laid up one course above another, beating it with the back of the fork, but not treading it with the feet. When finished, put on the frame and lights, and cover with a double mat, to draw up the heat. When this is sufficiently up, let the surface of the bed be turfed over, with the grassy side downwards, and then cover the whole, the thickness of six or eight inches, with any light mould, or rotten tan, upon which to place the pots with the seed. As the heat rises, the pots or pans may be plunged deeper, or kept on the surface, according to its strength. The frame will also require covering every night, with mats, either single or double, according to the temperature of the bed. No air need be admitted until the steam and the young leaves of the plants appear. Care must then be taken to tilt up the end of the sash, to allow the steam to pass freely off. Sometimes it is necessary to leave a little air on all night. If it be frosty, or there is a very cold wind, the ends of the mats should be allowed to hang over the opening, that the air may be broken, and not blow with force upon the tender plants. The temperature may range from sixty-five to seventy-five degrees. If mice abound which is very often the case, the seed pots should be covered with a piece of flat glass, or a bell glass, but the covering should be removed when the plants are well above the soil. If the soil in the pots appear dry, give a little tepid water, but not too much at a time. As the plants begin to grow, admit air at all times, when the sun shines, to prevent them being drawn up weakly; and uncover the frame in the morning as soon as possible after sunrise. When the seed leaves are about an inch broad, which they will be in a week or ten days after their appearance, they are then ready to transplant into the nursing pots, to acquire strength for planting out on the bed where they are to produce their fruit. The nursing pots and a quantity of light dry, soil, consisting of well decomposed dung and leaves, and sandy loam, should be put in the frame the day before they are used, to bring the whole to an equal temperature, that the young plants may experience as little check as possible in their removal. The pots should be about four inches in diameter, at the top, and two plants may be put in each. The deeper the young plants are set in the pots the better, as they will push out roots all the way up the stem, from the original roots to the surface of

the soil. After planting, give a gentle watering, with tepid water, from a fine rose pot. By the end of the month, the plants will be fairly established in their nursing pots, and when the shoots or runners appear between the two rough leaves, they will require stopping, or carefully pinching off, between the finger and thumb. This stopping, as it is termed amongst gardeners, will cause the plants to grow more stocky and strong, and to admit other shoots, which will show fruit. As the heat in the bed declines, linings must be applied, back and front, or all round the bed, if though requisite, to keep up the temperature.--JOHN BURTON, *Oxton*.

DAHLIAS must be constantly kept cool and dry, and should be examined, to see if they are rotting. Any that are in danger, may be potted, as they will frequently start a shoot, previous to rotting altogether.--RICHARD EDWARDS, *Nuthall*.

FRUIT GARDEN.--Pruning and nailing such things as Plums, Pears and Apples, should be got forward, whenever the weather permits. Apricots should also be looked to, during the present month, before the buds swell too much. Peaches and Nectarines had better be let alone for the present. My practice with these is to unnailed them in October, secure the branches from being blown about by the wind, and let them remain loose as late as I can in spring, to avoid, as far as possible, the danger from frost. Gooseberries and Currants must be pruned; but, with regard to the Gooseberry, my Lancashire friends must excuse me,--I grow for quantity, not for size, and am not at all partial to the knife with these trees, as too much use of it only producing a superabundance of wood, and but little fruit. All planting should have been done by this time, considering the fine autumn we have had. The longer these operations are delayed the less the chances of success. Where required, a good dressing of loam to fruit borders, will be found superior to manure.--WM. SHIPLEY.

FUCHSIAS.--If it is desired to have either old or young plants in flower early, the plants must be started early in the month and kept continually in a growing state. The old plants should be repotted, and encouraged by liberal waterings and an increased temperature. Cuttings struck in the autumn should be potted without delay, if not already done, into some good soil, and repotted as soon as the pots are full of roots. Cuttings may be put in according to the stock required.--JOHN DOBSON, *Woodlands Nursery, Isleworth*.

TULIPS—Continue to follow the directions of last month, the earliest will not be above ground before the beginning of February, so that mats thrown on a surface of the bed for protection, will be better than if the bed was hooped for this month.

T. ALLESTREE, *Draycott, near Derby*,

AZALEAS.—Gardening, as a science, is ever active and ever progressive; for let the season be wet or dry, hot or cold, or in any other way unpropitious for out of door operations, full employment can be found for the Azalea grower, in making flower stakes as required, labels, tying, training, top dressing the plants, picking all dead leaves off, washing the pots, stage, glass, &c.—E. CLEETON.

EPACRISES.—If the weather should be wet, foggy, or very damp and cold, and the thermometer standing near the freezing point, apply fire heat in the morning, and let it out at night, taking every advantage to economise fuel. If sharp frost set in, of course the fire must be kept on nearly or all the night, but in this case a man's own experience and faculty of observation must guide him. Keep every thing neat and clean —E. CLEETON.

HEATHERY.—The principal work here will be watering, tying, training the plants, and looking for mildew, air freely, night and day at all times, if the weather is at all favourable. Be particularly cautious with fire heat at all seasons, even when frost occurs, at most very moderate, where winter flowering plants are in demand. The following heathers should be largely grown for flowering in January. *Euia Bicolor*, *Gracilis*, *Hymialis*, *Scahriuscula*, *Sahana*, *Westcotii*, and several others.—E. CLEETON, *Dumbleton, near Evesham, Gloucestershire.*

PEACH HOUSE.—This house may now be gently excited by lighting up the fires in a morning, and allowing them to go gradually out at night, unless in very sharp frosty weather, increase the temperature the first month in the day time 8 or 10 above that out of doors. Give the trees a thorough good soaking at the roots with rain or soft water, little else will be required, excepting a slight syringing of the trees occasionally on a fine day when the house is warm.—M. BUSHBY, F.H.S.

CARNATIONS AND PICOTEEES.—These plants being in their winter quarters, require but little attention, except giving air on all occasions when fine, as much depends upon having strong plants to withstand the easterly winds in April, and if this caution be neglected, they will neither make increase nor bloom well. Some writers advise covering with mats, in severe weather. I never practised this, nor do I think it necessary, as they are perfectly hardy. Remove all decayed foliage, and if the soil in the pots be dry, water very sparingly, but avoid, it altogether, if possible.—J. SLATER, *Cheetham Hill, Manchester.*

PANSIES.—The directions for this month are few, yet important.—Both in the frames and out-of-doors slugs are very busy, and must be carefully watched and destroyed. Remove all decayed foliage, and give abundance of air to those in frames, at every favourable opportunity. In frosty weather, protection with mats will be necessary. Water but seldom. Prepare the soil for the final repotting, towards the end of the month. Plants out of doors should be looked over, to secure any that may have been disturbed by wind or frost.—**JOHN DOBSON**, *Woodland Nursery, Isleworth*.

ROSES.—Look over the directions for the last two months, and if anything remain to be done, attend to it at once, that is, if the weather be favourable.—*Roses in Pots*—Shorten and bring forward a few at a time, as wanted. Blooming plants and young stock now at rest keep dry and from sharp frost, bearing in wind always, that the Rose, in whatever state or stage of growth, must have air, to keep it in a healthy condition.—**HENRY DAVIES**, *Great, Sanmore*.

CINERARIAS.—Specimen plants will require attention in carefully regulating the shoots and leaves, to ensure a compact and well formed head of bloom. This must be often attended to, as the plants will be in full growth. It may be done in the way recommended for Geraniums. The plants must never be allowed to get dry, if it is desired to preserve the best foliage. Occasionally water with weak liquid manure. About the end of the month, repot all late-blooming plants. Fumigate occasionally.—**JOHN DOBSON**, *Woodlands Nurseries, Isleworth*.

PELARGONIUMS.—All plants that are required to flower in July must be stopped back the second week in this month, and the house should be kept rather close for a few days, to induce the eyes to break vigorously. When the eyes are prominent, give air at all favourable opportunities, by opening early in the morning and closing according to circumstances. The May plants will be fast showing their trusses, and become very interesting. Draw the syringe over the plants once or twice a-week, after shutting up the house, choosing a bright afternoon. Avoid all cold easterly winds. In watering, give sufficient to moisten the ball of earth throughout. Water with liquid manure once or twice a-week, using the following :—One peck of sheep dung, half a peck of cow dung, and about twenty-five gallons of water. After well stirring, let it remain for a few days, to get clear, and if considered too strong, add more water. Remove all fogged and fallen leaves. Attend to tying out, and give the plants all the room that can be spared.—**JOHN DOBSON**, *Woodlands Nursery, Isleworth*.

EARLY VINERY.—The buds in the early house will be swelling fast, as soon as they are fairly started a slight increase in the temperature will be required, 55 at night to 65 by day, allowing a considerable range for sun heat; taking advantage of calm weather and sun for giving a little air at the top. Be sure to keep the front lights close, as the young and tender vines won't bear cold drafts. When we enter a house where air is given at the front, we look up expecting to see blistered or warty leaves, red spiders, &c., which always follows that absurd practice. Plants suffer from the loss of too much heat and moisture, as well as animals. Continue to syringe the stems of vines and all dry places in fine weather, in dull humid weather be more sparing.--M. BUSHBY, F.H.S.

LATE VINERY.—Keep this house cool and dry, allowing no moisture to accumulate from the watering of plants.

THE BEST CINERARIAS FOR ALL PURPOSES.—Brilliant, white, light blue edge; Perfection, white, crimson tips; Admiral Dundas, white, blue purple margin; Sir Charles Napier, blue self; Picturata, rosy violet, light centre; Kate Kearney, white; Compacta, dwarf crimson; Baroness Rothschild, soft rosy purple edge; Mrs. Coleman, violet purple margin; Regalia, scarlet crimson self; Mrs. Hoyle, bright rosy margin; Excelsior, white deep violet edge; Editor, blue, with white circle resembling an Auricula. Seeds from these are worth half a crown a packet, and can be had true.

A FEW GOOD GREENHOUSE PLANTS.—*Acacia Drummondii*; *Beaufortia purpurea*; *Boronia serrulata*, *Drummondii*, and *tetrandra*; *Brugmansia Knightii*, and *sanguinea*; *Cessia corymbosa*; *Chironia, glutinosa*; *Chorozema cordata splendens*, *Henckmanni, ilicifolia*, and *Lawrenceana*; *Coleoneme rubra*; *Correa Brilliant*, *cardinale*, and *majestica*; *Cosmelia rubra*; *Crowea saligna*; *Crotalaria purpurea*; *Daphne Indica rubra*; *Epacris densiflora, hyacinthiflora, grandiflora*, and *Kinghornii*, *Eriostemon buxifolium, intermedia*, and *scabrum*; *Genetyllis tulpiferum* and *fuchsioides*; *Helichrysum humile*, and *macranthum purpureum*; *Hovea celsii, ilicifolia*, and *pungens*; *Leucopogon verticillatum*; *Pimelea spectabilis* and *Hendersonii*; *Pleroma elegans*; *Polygala Dalmatiana*; *Prostranthera violacea*; *Styphelia tubiflora*; *Veronica Andersonii*; *Witsehia corymbosa*.

Many flowers may be forced by placing them first in a greenhouse, and from that into a slight hotbed. Small kalmias, rhododendrons, roses, pinks, deciduous azalea, lilac, and other flowering shrubs, require much the same treatment.

Draining is of more consequence in a garden than most people imagine, and it is well to do this in the winter months, that the run of water may be better seen,



FEBRUARY.

Seeds & Sowing.

PANSY.—This is one of the prettiest plants in the border, and the varieties are not only numerous, but striking and beautiful. It is raised from seed in about the same time as ten-week Stocks, and, besides having the garden well furnished with a flower that is never ugly, the raiser has a chance of something new and good. If a pinch of seed be sown in a broad pan, in the month of March or April, it will be large enough to plant out by the time the weather is genial, and it will very soon come into flower. If we desire to improve the breed, the best way is to grow half-a-dozen or a dozen of the best varieties we can purchase, grow them together, with none others near them, and save seed from the most perfect blooms. It is propagated by cuttings, which shake readily in the shade, under a glass, all the summer months. Side cuttings make the best plants.

POLYANTHUS.—We heartily wish this was grown more generally, as a florist's flower, but all round London it has almost been abandoned, except the most common sorts, which are grown for market. A fine Polyanthus is a bright and striking spring flower, and the most common seems an ornament in a garden, when flowers are scarce. It wants a strong rich loam, and a shady situation, that is, where the sun does not reach it in the middle of the day. Sow the seed in a pan, and let it come up in a cold frame. When large enough, prick it out in other pans, and grow it till strong enough to plant out in its shady border, where it may remain.

till it blooms. The kinds esteemed by florists are those in which the thrum or anthers fill the tube, the yellow lacing must be as equal all round the petals and down the middle of each, as well as each division, to the eye; also, the yellow must be of one shade. Those which have the pistil sticking up are called pin-eyed, and, though very pretty, are not valued.

AURICULAS.—This is a more delicate subject. Tolerably hardy, but impatient of wet and wind; requires light and porous but rich soil; very apt to suffer from damp; must have air, and plenty of it; must be grown in a cold frame, as the only means of preventing extremes of wet, heat, and cold. Where the seed is sown in pans, it must be covered lightly, and damp moss should be put all over it, and kept there till the seed vegetates. It may then be removed, but the pan must be shaded until the seedlings gather strength enough to be pricked out, in other pans, an inch apart, when they must still be shaded until they have got hold of the ground; they must then have air, by propping up the back of the frame. They may, as they gain strength, have the morning and evening sun, and water when they are dry, but not before. The Auricula parts at the root. All the side shoots make plants, and if they have no roots, put them round the edges of pots, to strike root, under a glass, in the shade. There are many varieties.

PICOTEES AND CARNATIONS.—These are families nearly allied, but distinct in their character, and hold a first place as florists' flowers. It is difficult to obtain good seed, for, unless they are saved from very double flowers, which yield few pods, they are all but useless. The seed should be sown in pans, thinly, and when large enough, pricked out round the edges of pots, an inch apart. They may then be grown in a cold frame, until they touch each other, and get crowded. If there is every convenience, they may be potted two in a four-inch pot, or one in a three-inch, and be kept over the next winter in a cold frame. In the spring, they may be planted out, in a bed, with good rich soil, a foot apart, in rows, and eighteen inches between the rows.

This gives room to layer the sorts that turn out well, and the single and semi-double, if there be any, should be thrown away, unless any semi-double show something remarkable in colour, or in thickness and smoothness of petal, when they should be saved for seed, with the hope, however remote, of getting double ones with the same good properties.

FUCHSIAS, from seed, want a good deal of attention, for, however rapidly they grow, when they have once become strong plants, or when grown from cuttings, they grow very slowly, when first raised. The seed may be sown at any time of the year, but spring is generally preferred, because the plants have the advantage of summer for their young growth. These, like almost everything else, grow faster when put round the edge of a pot than when away from it, but as soon as they are as large as a struck cutting, they will bear the same treatment. Many seeds that look well do not vegetate, and we have considered ourselves fortunate when we have got a dozen plants from one of the ordinary packets. Fuchsias strike freely under a bell glass, if cuttings are taken when an inch long; and, to grow them well, they should be topped as soon as they begin to grow, except they are wanted for pyramids or standards.

CINERARIA.—A tender perennial, of every shade and colour but yellow, sown in a greenhouse at about any time, but best, early in spring. It will soon be fit to pick out four or five in a four-inch pot, close to the side. Let them grow in a cold frame or in the greenhouse, if you can give abundance of air. When they have become strong, pot them singly in three-inch pots, and when full of roots, change to four-inch pots; from these, when filled, to five and six-inch, in which they may be flowered. There is no plant that brightens up a greenhouse more, for the diversity of colours is extraordinary. This plant must always have abundance of air, and the watering must be carefully done. The drainings must be good. The soil, loam, dung, and peat earth.

CALCEOLARIA.—There are no two families that do better together than this and the Cineraria. The treatment, in every respect, may be alike. The seed of this

is so small that a packet, which will give two hundred plants, will only look like a dusty paper, when opened; but it requires the greatest care in sowing, to spread it thinly and evenly, for if they come up too thick, they will damp off before they are large enough to thin out.

DAHLIAS.—Sow the seed in March. If in any quantity, make up a small hotbed, put in four inches of good light soil, and sow thinly and evenly, all over the surface; then, take some light soil in a sieve and sift a covering all over it. As soon as they germinate, give air, but not enough to reduce the temperature much. As they advance, give more air, and where they are too thick, take out a few, to give room. These may be pricked out, round the edges of pots, to grow stronger. By degrees, those in the bed are to be cooled down. At the end of May, plant them out as you would Cabbage plants, with a dibble, eighteen inches apart in the row, and two feet from row to row. A stake, about every six feet, with cross pieces or lines reaching from one to the other, will do to tie the plants to as they grow. As fast as they come into bloom, adopt or condemn them. If they are inferior, cut them down to the ground, and let them no more shoot out. Those worth saving, should be trimmed and taken care of, to try the next year. Dahlias propagate from cuttings, struck in heat, under a bell glass.

MIMULUS may be sown in early spring, out-of-doors, but is hastened by in-door culture. The seed must be sown thinly, and the young plants treated like *Calceolarias*, except that the *Mimulus* must be frequently watered, and would bear standing the pots in saucers of water. They may be changed from pot to pot, until they are as large as you wish them to be, and you should pull off the first buds, and top the first joint, to make them throw out laterals. These are very beautiful bedding plants, constantly blooming till cut off by the frost; but any that indicate novelty should have all the cuttings taken off at once, and even the old plants potted up before the frost takes them. This plant is improving, year by year, in size and colour.

GERANIUMS (Show, Fancy, and Bedding.)—As the treatment of these is alike, in all respects, we class them

all under one heading. The seed should be sown thinly and evenly over the surface, and a little soil sifted over it. If you have a light hotbed, or a spare shelf in the hothouse, it is as well to start the seed in a little warmth, but it will do in the greenhouse, though longer coming up. When they have two rough leaves, prick them out carefully round the sides of pots, putting about half-a-dozen in a four-inch pot. The soil should be half loam, from rotted heaps, one-fourth decomposed dung, and one-fourth peat, well rubbed through a coarse sieve. Take care that one-fourth of the pot is filled with crocks, and that water is given to them whenever the soil gets dry on the surface. Here they may grow till they begin to crowd each other, when they must be potted singly, sinking the stem to bring the lower leaves within half-an-inch of the surface, and then shift as often as they fill the pots with roots. Propagate by cuttings. When the bloom is over, cut all the plants in, and put the cuttings in the open border, under a hand-glass; they will strike freely, if shaded from the extreme heat of the sun.

PLATYCODON CHINENSIS.—A very beautiful bell or cup flower, beginning to open on the top of upright shoots, all of which spring from the root. No laterals, except of the bloom stalks. Very like old *Campanula grandiflora*, but treated of late as a novelty, and grown in the greenhouse. It is, however, a beautiful and very singular plant, dying down every year, like *Asparagus*, and coming up with similar buds in the spring. Raise the seed in the greenhouse, and prick out a few round the edge of a four-inch pot, where they may grow the first year. When they die down, let them be without water for a month or six weeks, and then shake out the root, put one in a four-inch pot, and let them grow on till they bloom. The seed is scarce, but the roots will part for propagation. Very few nurseries appear to have plants.

LINUM GRANDIFLORUM RUBRUM.—This seed vegetates very unwillingly, if sown in the usual way. Some garden conjurors direct it to be soaked in hot water—a process dangerous in young hands. A friend of ours

succeeds completely by a less dangerous process. Soak in cold rain water twelve hours, wash the glutinous stuff away a little, soak again another twelve hours in clean water, and wash again. Do this a third time. Then let the seed be mixed with dry silver-sand; sow it in heat, and gradually bring the plants to greenhouse culture, when they may be turned out like other bedding plants, or grown on in pots. There is no chance of killing the seeds this way.

Roses.

[Continued from Page 11.]

THE DOUBLE YELLOW CABBAGE ROSE, or YELLOW PROVENCE—*R. sulphurea*—approaches the Provence in name only, and in similarity of form of the expanded blossom, being essentially alien in descent to that and most other Roses. When well bloomed, it is a horticultural gem, but is so difficult to manage as to make it, in that case, a horticultural triumph. As to situation, I have never seen it blossom well, either in Britain or on the continent, except when growing at the foot of a low wall, over the top of which it could straggle as it pleased; for it will not submit to pruning. It is one of the Roses (among which are included the pretty little climbing Banksias, with their white or nankin-coloured tufts of tiny violet-scented flowers), which cannot bear even the smell of cold steel. You might not unreasonably expect them to refuse to flower if you come near them with a knife in your pocket, even if you do not take it out and open it. You may get rid of their dead and used-up wood as well as you can, by breaking it off; but the effluvium of iron agrees not with their constitution. A south aspect does not suit the Cabbage Yellow, while plenty of evidence exists to prove that the best chances are had in the above-stated position, or some near approach to it. Mr. Paul tells us:—"At

East Lodge, on Enfield Chase, there was a plant on its own roots, growing at a distance of about ten yards from a wall, with a north-eastern aspect. It here produced its beautiful yellow blossoms abundantly, covering the bush on all sides, during the flowering season, for several successive years. This situation is high and exposed; the soil is naturally a heavy loam, but was somewhat lightened and enriched by the frequent addition of stable manure. At Ballater, in Scotland, both this and the Austrian Rose flower beautifully. They grow there most luxuriantly, in a very exposed situation, covering a wall of great height and extent, laden with perfect flowers." Mr. Rivers tells us:—"At Burleigh, the seat of the Marquis of Exeter, the effect of situation on this Rose is forcibly shown. A very old plant is growing against the southern wall of the mansion, in a confined situation, its root cramped by a stone pavement; it is weakly, and never shows a flower-bud. In the entrance-court is another plant, growing in front of a low parapet wall, in a good loamy soil, and free airy exposure; this is in a state of the greatest luxuriance, and blooms in fine perfection, nearly every season. M. Godefroy, a French nurseryman, has cultivated the Yellow Provence as a pillar Rose, in a free and open situation, with much success. Surface manure in autumn, liquid manure in May, and summer pruning, with finger and thumb, are indispensable details in his routine." The Yellow Cabbage will not bear the smoke of towns; nor has any good been done with it by budding, as far as has yet come to light. In unfavourable soils, it has been recommended to be budded on the Musk Rose, the common China Rose, or on some free-growing Hybrid China; or to bud and graft it on short stems of the Rose Manettii, to be afterwards planted in orchard-houses; on all which, the only true commentary is comprised in the words "but" and "perhaps." Possibly, we have no congenial stocks on which to bud it, but must ransack the wilds of its native Persia, to find them. Its delicate glaucous leaves, and slender prickly twigs do not look as if they could find sympathetic support from any of the Roses at present dwelling in

Europe. In short, no system of culture has hitherto been hit upon which is certain to insure a successful issue. It is not quite clear that its dwarf variety, the Pompon Yellow, has ever opened its flowers in England.

THE AUSTRIAN BRIAR—*R. lutea*—takes after the Yellow Cabbage in its dislike to smoke, to pruning with a knife, and to being budded on other stocks. It likes a dry soil, and plenty of liberty, for its branches to ramble. As yet, a double Austrian Briar is a desideratum, which, enthusiasts tell us, only bides its time. There are two varieties. The most striking has large single blossoms, rich copper-colour within, and yellow without. The petals of the other are of a bright canary-yellow, both on their upper and under surfaces. Harrison's Double Yellow Briar is a valuable Rose, bearing town smoke a little better than the former, doing well budded on the Dog Rose, and blooming both freely and early. It is useful to constitute the attractive flower, in the centre of a pretty bouquet. In pruning, thin out the twigs rather than shorten them; you will thus obtain a sort of weeping Rose. *Harrisonii*, as it is sometimes called, reached the old world, from America. The Persian Yellow is also a beautiful semi-double Briar, which was highly vaunted, on its first introduction. It is questionable, however, whether it will supersede Harrison's. It has scarcely bloomed so freely, nor submitted to the restraints of pruning, and the proximity of towns, with so good a grace, but still deserves a fair trial and persevering attention, on the part of the amateur. Persia has yet other Roses to send us, if some enterprising collector will only fetch them. The large species there, called the Nustarund, which grows to a considerable height, throwing out garlands of highly-scented flowers, would be a valuable acquisition to our pleasure-grounds. The Miskeeja is also a very pretty delicate cream-coloured Rose. From a red kind, highly scented, the best rose-water is distilled.

THE WHITE ROSE—*R. alba*—is the parent of a very distinct little party, recognisable by their grey glaucous leaves, their vigorous shoots, with smooth bark and stout thorns, not too closely crowded, and their peculiar per-

fume. They often make handsome plants in moderate-sized towns, grown on their own roots, and trained against a wall, a large surface of which they will cover. The Old White is an early and a welcome Rose. Its semi-double and single varieties are often to be seen in out-of-the-way gardens and shrubberies, as if the plant had stolen away to the wilderness, and had resumed the habits of savage life. Everybody knows and loves the Maiden's Blush. Celestial is a very beautiful flower, when half opened; afterwards, its charms diminish. Madame Audot is a fine double creamy pink hybrid, between the Alba and something else. Princesse Lamballe is a lovely pure white Rose, sometimes delicately tinged with flesh. The Queen of Denmark is another charming hybrid. La Seduisante is a fine flower. Hybrids from the white have produced several mottled Roses, amongst which are Madame Campan, Effie Deans, and Marie de Bourgogne. The Old White and the Maiden's Blush furnish excellent stocks to bud on.

THE FRENCH ROSE—*R. Gallica*—a highly-scented species, of robust growth and thrifty habit, in any tolerable soil; is largely grown in the environs of Provins, in France, to make conserve; it is thence sometimes called the Rose de Provins, which has caused a confusion with Provence Roses. A well-known type is the medical Rose, grown for the apothecaries, to dry and make decoction of roses with, and for the preparation of rose-water, by distillers. Another wide-spread variety is the coarse semi-double striped Rose, which ought to be called Rosamond, or *Rosa mundi*, the World's Rose, though it is often wrongly styled the York and Lancaster. French Roses will often succeed in towns. From them have been raised several beautiful striped and spotted varieties, as the Village Maid, Carnation, Abbesse, Duc d'Orleans Ponctuee, Harlequin, and others. The spots are less to be depended on than the stripes. Many of the French Roses are admirable as exhibition flowers. Take as instances,—Enchantress, light pink; D'Aguesseau, bright crimson, very large and full; Boula de Nanteuil, dark crimson; Kean, crimson-scarlet, shading into purple; Grandissima, rosy crimson; Briseis, brilliant rose; Comte Lacepede, rosy lilac;

Guerin's Gift, vivid rose; Madame Dubarry, crimson scarlet; Gillet Flamand, distinctly striped with pink and rosy lilac; Pamela, large, rose, and very double; Tricolor, striped crimson and purple, of which there are several successive improvements; Tuscany, dark velvety crimson, and scores of others. The petals of the French Roses are the best for making pot-pourri. In pruning, thin out the heads well, and shorten the shoots moderately. The nurserymen's catalogues of French Roses are immense, but, as Mr. Rivers observes, "it is perfectly useless, in the present advanced state of Rose culture, to burden these pages with a long list of varieties which are, or ought to be, obsolete. Autumnal Roses must very shortly entirely supersede all the summer Roses, with the exception of a few select varieties of the Moss Rose;" and, let me add, the Yellows, the Whites, and the Scotch.

DAMASK ROSES—*R. Damascena*—are of rough, twiggy, thorny habit, with light green, somewhat downy leaves, and hardy constitution. A good example is the true York and Lancaster, a double, flattish, striped Rose, which occasionally produces blooms wholly white on one half of their area, and wholly red on the other; thus symbolising the union of the houses, after the bloody wars of the White and Red Roses. They are fragrant flowers, but the bushes on their own roots are of irregular, scrubby, and inelegant growth. Budded as standards, they may be treated in the same way as the French Roses. Show Damasks, which deserve mention, are Madame Hardy, pure white, but with a green eye, too conspicuous; Semiramis, fawn in the centre, shaded with glossy pink; La Feroce, or Ferox, very large, full, pink flowers, with an extra allowance of thorns on the branches; La Constance, or Pæony-flowered, very large, flattish, full, pink, darker in the centre, makes a showy standard; La Ville de Bruxelles, pink, very large and double; La Cherie, delicate blush, cupped, very double; Madame Zoutman, delicate cream colour; and Pulcherie, pure white. Do not prune these in too closely. Let them run on, to form large heads, unless they are getting shabby and naked near the original bud.

SCOTCH ROSES—*R. spinosissima*—have small leaflets, small twiggy branches, thickly set with small spines, producing undersized, globular, double, and semi-double flowers, sweetly scented, and blooming before summer Roses in general. They have a great tendency to throw up suckers, which blossom profusely the following summer; hence, some growers cut out the old wood annually, almost as strictly and completely as they would do with Raspberry canes. All the Scotch Roses resemble each other very much, in their habit of growth. They are less easy than other members of the same genus to distinguish, when leafless, in winter, by the aspect of the wood. A collection of the different varieties makes, therefore, a nice even hedge of Roses, which only requires looking over once or twice a year, to keep it compact and in order. Budded as standards, they make pleasing heads, when full in bloom, but require considerable patience to prune, which must be done by thinning out rather than by cutting back. The blooms are better adapted for out-door enjoyment, and for bouquets, than for exhibition. A few distinct varieties are The Queen of May, blush; True Yellow, a hybrid, sulphur-coloured, fading to white; The King of Scotland, petals purplish red within, light without; Venus, dark and double; William IV., large white; Sulphurea, straw-coloured; Guy Mannering, double blush; La Neige, white and double; and Daphne, pink. The Stanwell Perpetual is a true Scotch Rose, very light blush, fading to white, sweetly scented, and the only one worth notice belonging to its group, which is really what the French call a Rose remontante, or ever-flowering Rose. It begins as early as any of its brethren; and the frosts are sure to destroy advancing buds, which would open in their turn, "weather permitting." It would be worth trying the Stanwell in plunged pots, to be transferred to the greenhouse at the approach of winter.

THE WILD SWEET BRIAR—*R. rubiginosa*—has been introduced to our pleasure-grounds for the exquisite fragrance of its leaves. The flowers are scarcely more highly scented or prettier than those of the common Dog Rose, *R. canina*, and in all cases where its blossoms

have been improved, by intentional or accidental hybridizing, or by the sporting, either of germinating seedlings or suckers from old-established plants, the improvement has been obtained at a sacrifice of some good quality in the foliage,—such as diminished vigour and suppressed perfume. Those who like, may try the Carmine Sweet Briar, the Monstrous, the Scarlet, or La Belle Distinguee, and the Splendid; but, for the purpose for which Sweet Briars are grown, there is nothing to equal the Sweet Briar of the hedge. The above-mentioned (and there are none better) are quite worthless as exhibition, and nearly so as bouquet flowers. Hybrids from the Sweet Briars, whose flowers have any pretensions as Roses, have their leaves nearly or quite scentless, and would not be suspected to come of odoriferous parentage. The Double Marginated Hip (there is a single one) has an abundance of small, tolerably double, creamy-white flowers, edged with pink. Riego, light carmine, large and double, has all the air of a Hybrid China. Mr. Rivers advises to re-cross this with the Splendid Briar, in the laudable endeavour to produce seed, from which large and very fragrant double Roses might be obtained, partaking largely of the characters of the true Sweet Briar in other respects. It is only by these repeated attempts and approximations to a given model that floricultural perfection can be attained. On gazing at a lovely flower, or tasting an exquisite fruit, few persons dream of the patient years and skilful combinations it has cost. The wild Sweet Briar is not to be recommended as a stock to bud on.

Potatoes.



THE few past seasons having been more favourable to the Potatoe than some previous years, encourages us to hope that, by care and skill in cultivating, this valuable vegetable may be preserved to us. For amateur gardeners, we would recommend growing only

early kinds, unless any feel disposed to institute experiments; this may be done anywhere, and those who have time for careful observation, may do good service in this way. We have often made the remark, and now repeat it, that the possessor of the smallest garden may make discoveries which shall have a bearing on the wealth of nations. The sooner Potatoes of every kind are in the ground the better; but this is indispensable with the early sorts, such as the Ash-leaved Kidney, if the produce is wanted for the table. I will detail the plan I have pursued in my own garden, and shall be happy if any part of it is of service to my readers. I first looked over my stock, and separated those which had sprouted from the rest, taking care not to injure the young shoots; for it is evident, that much time is gained if we can plant a Potato, which has already made some advance in its growth, not to mention the exhausting effect of a healthy sprout being broken off. The spot I chose for planting, was that occupied last year by Scarlet Runners, the soil there being light, and having in it the thoroughly rotten manure employed for that crop, nothing being more certain than that fresh dung, or strong stimulating soils are unfit for Potatoes. I dug out a trench, with a fork, about six inches in depth, loosening the subsoil as much as possible as I went along, and into the trench I put a good layer of old straw, Potato haulm, or other dry and light rubbish. The Potatoes were then carefully placed in the midst of the straw, the shoot upwards, and a good sprinkling of dry ashes was laid over the whole. The soil which had been turned out was then put back, and the rows finished off with a gentle ridge. A little early Radish seed might be sown on the top, and would do well if covered lightly with long litter. Potatoes treated in this way will be kept from an excess of moisture during heavy rains, the tubers will more freely expand, and the ashes will check the depredations of insects. Notwithstanding the information which has been diffused in so many ways respecting the importance of planting Potatoes in the early spring, and even in winter or autumn, it is to be lamented that great igno-


rance and perverseness still exist on the subject. A lady in my neighbourhood recently jogged the memory of her gardener (a professional man), and wished him to get in a few rows of Potatoes, but he told her it would be of no use doing so, since the frosts would be sure to kill them. This is adherence to old custom, in opposition to the new light of science and experience. I have no doubt that the same wiseacre keeps his Tulips out of the ground until the shortest day, according to the orthodox statute made and provided. I have a great respect for gardeners, but I must say their usefulness is much crippled by their dogged determination to learn nothing but what they can weave out of their own brains, in addition to the traditionary lore in which they have been brought up. I found the following in an old cyclopædia, among many other practical matters, regarding the Potato:—"Method of Raising Potatoes in Winter.—Make a compost of earth, sand, and coal ashes. With this mixture, fill a tub, about sixteen inches deep. Plant this artificial soil with some sets of the early round Potato, and place the tub in a stable, opposite to a window, taking care to water the earth now and then. In all seasons the sets will sprout, and give a tolerable increase of Potatoes. Last November, I planted some sets in the above manner, and in February following I took up a considerable number of young Potatoes, clean skinned and well flavoured." In reference to the general cultivation, the first thing to be done is to get good seed, and to obtain it, as far as possible, from the scene of action. In some neighbourhoods, all Potatoes are related more or less remotely; and in order to be free from the injurious consequences of this "in and in" system, sets should be procured from as great a distance as possible, that all the advantages of a change may be made sure. Plant in sets, having at least two eyes in each, in rows a yard apart, and distant from each other nine inches in the row. The general principle that every plant should have room to grow, without depriving its neighbour of sun and air, is especially applicable to the Potato, whose tubers can only be brought to perfection by a full

quantity of those natural agencies. Should the disease break out again, it cannot have a more congenial sphere for its ravages than a plot of Potatoes, with weak and elongated stems, produced by over-crowding. The rows should be a good distance apart for another reason, namely, to allow of earthing up. If it is excess of moisture which is so fatal to the tuber, at the later period of its growth, earthing up will, in some measure, counteract the evil. The plan recommended of covering the advancing stems with mould, which seems to have sound reasoning for its basis, can only be adopted with advantage by planting at considerable distances. Numerous experiments have proved that the soil for Potatoes should not contain rich and exciting manures; but anything which acts mechanically, by keeping it light and open, cannot be too highly recommended. I have been carefully collecting all the soot and ashes the premises will yield; also brick rubbish, and the bottoms of wood cellars and faggot heaps. I should like a quantity of old thatch, if it were available, and then, all these materials mixed together, would form an unexceptionable compost. Those parts of the garden will of course be chosen which grew other crops last year. The fork is the only tool necessary, except in sandy soils. To work with a spade, except for the purpose of excavating or digging holes, is most barbarous. Everything should be done to render the soil as light as is practicable, and a spade cannot accomplish this end at all like the fork. If the gardener has not at command the materials recommended as compost, he had better do without any than employ stable dung, however rotten it may be. A poor soil is far more favourable for the growth of sound Potatoes than a rich one, and it is pretty certain that we owe the disease to the habit of using stimulating manures. There should now be no delay in planting, as the danger to the crop increases with every week of postponement. Plant really good tubers in the way we have pointed out, and you will have done all that you can to get a remunerating crop.

BURGESS' AMATEUR GARDENER.

Progress of Floriculture.

BY MR. J. TYNAN, GEORGE-STREET, LIVERPOOL.

 S season after season closes, it may be well to ask the question, what advance is being made in the pursuit of floriculture? Is there any perceptible improvement? These questions may be answered very satisfactorily, I think, to the lover of his art, especially so after such a season as the past, which, from the opening to the close, has been one of success for the florist; and as much may be said for floral exhibitions, which appear to have grown in favour with the public, this much may be safely affirmed of the larger gatherings, which, as far as my observation and knowledge go, have been a series of floral triumphs. If we look more closely into the character of these meetings, we shall find that here, too, the same progress is apparent. The standard of excellence has advanced in proportion to the increase in public favour. The exhibitions held in the Liverpool Botanic Gardens may be cited as a case in point; in each of the different classes there is a marked improvement. Azaleas, Pelargoniums, Heaths, &c., have made considerable advance on former years, and, in some cases, they were little, if any, behind the metropolitan shows. In florists' flowers, in particular, our Liverpool growers do not seem to make any especial effort, though there are a few who are still faithful to their former love. Some twenty-five years ago, Liverpool could boast of its Auricula and Polyanthus show in spring; its Tulip show in May; and its Carnation show in July or August. Those who can look back into the past, may call to mind meetings, in the Corn Exchange, where the flowers above-named stood pre-eminent; greenhouse and stove plants being introduced to fill up and give effect to the scene. Now, it is otherwise; the latter take the lead, having almost thrust out the old favourites. I do not think there is any cause for regret in this, as it is a strong proof of advance in the means and tastes of those engaged in the pursuit.

Like all other pursuits, floriculture must advance, in order to hold its position, and keep abreast of the onward movement of the age; new subjects must be sought, and introduced into public notice, to meet the demands of a healthy public taste. We sometimes hear complaints of so many new things being brought out—so many candidates for public favour, that it seems almost impossible to remember half of them. Now, I regard this as an evidence of a healthy state of things; it indicates that there is a growing want, and as sure as there is a want, there will be a supply; but let the demand cease, and the supply will cease also. There is a rich and exalted pleasure in thus developing the abundant resources of nature, and marking, as the reward of patience and knowledge, both practical and scientific, the unfolding of the stores of the treasure-house of nature. Music, poetry, and science have each their charms, and each find their votaries; not less so, the cultivation of flowers. Trees, it has been said, are the poetry of nature; floriculture may be said, with equal truth, to be the poetry of life, and, in proportion as civilization advances, and the cultivation of the arts increase, so will the love of flowers,—and there is no pursuit which is so free from objections. Painting, poetry, music, are all, more or less, made the vehicles of the views and opinions, and sometimes even the baser passions of men, and heaven-born genius is often made the degraded handmaid of folly, or of still more degraded superstition; but it would be difficult to make floriculture the medium of any of the prejudices or follies of its votaries. It is a question well worth the attention of the leaders in the floricultural world, as to how far other matters might be made useful in promoting the interest of our exhibitions. Music has already lent its aid, and, should these meetings still grow in public favour, it appears to me that science and literature might be made subservient to their general usefulness. Could not there be something contrived by which those parties interested might meet, and interchange their views, and make known their observations and discoveries, and thus make these gatherings the

means of greater benefit and pleasure? Progress must be made, and the increasing intelligence and knowledge provided for, and I know of no more likely place for advanced efforts to succeed than in such a place as Liverpool. Here, as to a centre, are drawn, by their varied interests, men acquainted with all the requirements of agriculture, manufactures, medicine, the arts, &c., and who, by a free interchange of knowledge, would add very much to the usefulness and interest of those meetings. I would suggest that another season's exhibitions be brought to a close by a Chrysanthemum show, and a general meeting of the friends of horticulture, at which, papers might be read, and addresses delivered on matters connected with floriculture, horticulture, and kindred subjects. The St. George's Hall, in this town, would furnish accommodation to carry out this arrangement, and, in the hands of an able committee, some such scheme would, I have no doubt, be brought to a successful issue. I know of no more beautiful scene than would be presented by this noble hall, filled with all the rare beauties of the floricultural art, and ample room would be afforded for the great number of visitors who usually attend our meetings, without any fear from unfavourable weather, which is so often an attendant of those held in temporary erections.

Aphides, Bugs, &c.

A RECIPE WORTH A GUINEA.—A wash, which is a preventive as well as a remedy, is made by dissolving half-an-ounce of bitter aloes in a gallon of water. With this wash syringe your plants, so as to wet them under as well as over the leaves. If the enemy be there, he will be destroyed; if he be not there, he will not come. Whether it be the nauseous bitter on the surface, or the smell, or both, we know not; but, so far as it has been tried, infected plants may be put all round one so treated, and there will be no sign of thrips, bug, or aphides, even if the others be covered. Now,

if all those who make discoveries were as mercenary as the vendors of the old custard gourd for a new acquisition to our edibles, or the man who recommends us to throw dust in the poor thing's eyes, and call it aphid powder, or the vendors of any of the other humbugs of the day, the gardener who found this out might have announced it as "the gardener's friend," at a shilling a bottle, and made his fortune. However, he elected to give it us, for the benefit of our sixty thousand readers. It is the only thing that destroyed the thrip for us, and we believe that, while the bitter remains on the surface, nothing living will touch it. We feel great confidence that even snails and slugs will not meddle with it; and all we can say about its effects on caterpillars is, that they have not as yet attacked a plant so prepared, and that they have committed depredations on plants very close. We do hope that a supposed remedy so simple, so easily tried, and so void of all humbug, will be adopted by everybody who has plants to try it on; for, if our correspondent be right, there is an end to all smoking and fumigating. This is an easy process for Roses out-of-doors, and there is nothing to pay any mercenary scamp for the privilege of applying it.

GLENNY'S GARDEN ALMANAC.

Ericas, Heaths, &c.



WE have seen some thousands of *Ericas* growing well in brick pots, without fire, or other artificial heat, and as it was continued for years, we have no reason to think it a bad plan, but there was nothing large. The management consisted in opening them complete every mild day, through the winter, and covering them close, in hard frosts. We have seen them often with the soil in the pots frozen hard on the surface, and then the only prevention taken was, to cover them from the sun, until everything was thawed again. But Heath structures, to grow plants of any

size, should be easily opened altogether, sides and top, and as easily closed. A draught of air would be detrimental, but thrown open to the wind, that it might fairly blow them about, they thrive well. A ridge roof, of which the top lights would slide down on the lower ones, and the side and end windows open out straight, with a middle table level with the lower part of the front lights, so that the tallest plants might go along the middle, and the shorter ones come nearer the edge, and a two-foot table next the window, would be the perfection of a Heath-house for specimen plants, of all sizes. If there were any of extraordinary size, too tall for the table, it might be shortened, to make room for them on the ground. The advantage of this house would be, that it could be closed or open, or partially open, according as the weather may dictate. We have seen pits, of which the sides would open, used with advantage. As we have not all got exactly what we should like, we must do the best with our present means; therefore, give the plants all the air you can, on mild bright days. Let gentle winds blow them about, that is, if they are not on an exhibitor's usual scaffolding, for it does much good to move their branches a little; but, even laced and caged up as it is the fashion to grow them, the wind, from south or west, will do them good. Great care must be taken in watering. Never give them a little. Always pot them so that the pot above the soil will hold as much water as will go through it. All this, however, must not be given while they are at all moist, and give no fire heat until absolutely necessary; when you do, it would be well to have a self-acting ventilator, that should open when the temperature rose to forty-five or fifty degrees, for artificial heat is detrimental, not, perhaps, perceptibly at the time, but in reference to permanent health. Excitement, beyond a certain point, is injurious to plants as to animals, and, therefore, to be avoided as much as possible. But the Heath, being in light soil, for the most part peat earth, will suffer greatly if the watering be neglected.

GEORGE GLENNY.

Annuals.

FROM the numerous advertisements of annual flower seeds, we may presume there are vast numbers of buyers, and when the beauty of this extensive tribe is considered, we cannot wonder this should be the case. To depreciate annuals would indeed be a tasteless and a hopeless task, since they are worthy the best treatment, and are of such essential service in most gardens. My object will rather be to direct and regulate, and not to discourage the growth of annuals. I shall, therefore, make some general remarks on annual flowers themselves, and then lay down a few rules for their successful culture. In gardens of great extent, there is a capacity for growing almost everything to advantage. Some plants are attractive anywhere; others make the best appearance in situations where a close inspection is possible; but many are not fit for confined situations, and when they are admired, it is confessed that "distance gives enchantment to the view." The common Sunflower is ungainly and awkward in a little suburban garden, but it tells well in a plantation, or when it can be seen afar off. The same may be said of the Orange Erysimum; its colour renders it invaluable, when grown in clumps, for general effect, but how miserable it looks when found in a small mixed flower-bed! In growing annuals, therefore, their size and habits should be diligently studied, as well as the extent of the garden which they are intended to adorn. If this rule is neglected, amateurs will be disappointed when they purchase seeds, which may have been justly commended. When grown and in flower, it may be true, they are individually beautiful, but they may not be in keeping with objects around them. Great care should, therefore, be used in selection, if the time and money of the amateur are not to be wasted. For small gardens, shrubby and compact greenhouse plants, which do well in the open ground, in our summers, are much to be preferred to many annuals. Pelargoniums, Fuchsias, Calceolarias, Verbenas, Petunias, &c., may be preserved

with ease through the winter, and by careful management, may be turned out in May and June, in a blooming condition. Every observer of gardens must see the vast superiority, in point of beauty and finish, which these exotics possess over most annuals. If, then, you are limited for room, select only those annual flowers which grow compactly, and which continue long in bloom. The *Mesembryanthemums* are admirable in these respects, but they require more sun than we generally get in England. However, I cannot recommend the sorts to be preferred, since tastes so much differ. Some seedsmen send out catalogues, which give the heights, times of flowering, colours, &c., of all the seeds they sell; and the amateur will do well to use one. Annuals should have plenty of room for the development of their peculiarities. They are generally planted too closely, and thus their beauty is not seen. As to the method of raising them, I would decidedly recommend a seed-bed, for most varieties, in preference to sowing them where they are to remain. Many sorts are too tender for early sowing. Then insects torment you; for if your stock is dispersed through the borders, you cannot keep your eye on the scattered portions as you can when it is together in a bed. Besides, transplanting is, in most cases, an advantage, and secures greater vigour to the plant, provided it is properly done. Raise your seeds, then, on a gentle hotbed, and when they are developed in strong plants, remove them to their destined quarters. When you are anxious to have them flower early, or where the seedlings are impatient of removal, it is a good plan to pot them, when only half-an-inch high, into small pots, two or three in a pot. You can then get them forward in a frame, and turn them out when frosts are over, without the plants receiving the slightest check. There is an annual, the beauty of which cannot be too highly spoken of, I mean the *Phlox Drummondii*. Its habit of growth makes it very desirable for small gardens, as it is compact, and may be pegged down with advantage. Its varied shades of crimson are truly gorgeous, when seen in masses.

It continues in flower very late, and a slight frost will not much injure it. Sow the seed now. Sixpennyworth will stock a large garden. By adopting the plan of potting the seedlings, by June you will have a supply of bushy plants, which will immediately flower and continue gay till October or November.

BURGESS' AMATEUR GARDENER.

The Pelargonium.

WE are not anxious about the origin of our favourites, further than may be necessary for the purposes of cultivation or improvement, and therefore, to adopt a few lines that we wrote many years since, we shall merely say, the present noble varieties of the Pelargonium have sprung by hybridization, and cross-breeding from shrubby and tuberous-rooted kinds, which are natives of the Cape of Good Hope, and have reached their present stage of beauty through a long course of successful culture. As most amateurs have to begin their floricultural pursuits by purchasing a few plants, we must suppose them to be of the usual kind, such as respectable nurserymen send out. Dobson and Son supply robust little plants, in three-inch pots (or larger, in four-inch), generally ready for a shift into pots a size larger. Nurserymen are obliged to keep sale plants in as small pots as they can, to insure health, for the convenience of packing, and therefore never shift them until they absolutely require it. On receiving the plants, our first business is to turn out the balls of earth with the hand, by striking the edge of the pot upon the potting table, with the plant inverted, and a finger or two across the surface to catch the ball without disturbing it. If the roots have begun to mat across each other much, the plants want a larger pot; if, on the other hand, the roots do not appear, or appear but little, the plants have not as yet had the full benefit of the last shift, and may go on for a time with-

out a change, but as a change must come after a time, our first consideration in preparing for it is

THE SOIL OR COMPOST.

There is a good deal more fuss made about this than is necessary. It should be rich and porous; considering that these conditions may be provided twenty different ways, we need not wonder that not two of the growers agree in the making up of their compost, and nevertheless, all, more or less, tend to the same end, and all successful. We are for simplicity. If we could only get pure maiden loam, that had no vegetable nor animal manure, but was simple clean loam, we should want vegetable mould, thoroughly decayed dung, and sand for our service. The first three in equal proportions; the latter, only in such proportion as would make the compost sufficiently porous, and that would depend entirely on the character of the loam; if it were sandy, more would be required; if it were stiff, we should want sand enough to make it capable of rapidly absorbing water, and retaining some of it. Our own plan is to obtain good turfs from a healthy pasture, cut as if for laying down, but thick enough to contain all the roots, somewhat thicker than we should want to make a bowling-green. These we should stack up, opened out, one upon another, and there let them rot. As we are in the habit of using turfs, for laying down for lawns, we lay aside all clumsy pieces, to stack up, for rotting. A heap of this kind is, when well rotted, two-thirds loam, and one-third vegetable mould; because all the grass and roots have rotted in it. Now, of this heap, when old enough, we should take two-thirds, and one-third of clean dung, rotted into mould, such as the dung of an old hotbed. If, on mixing this, we found it too adhesive, we should have recourse to the sand, and only tell by mixing and trying the texture, what sand was required. But beware of exciting plants too much. Everybody can understand the above, and it is necessary to abide by it, and leave the exciting composts—the bone-dust that one writes of, the different stimulants that another recom-

mends, altogether alone. It may be received as an unerring fact, that plants excited to the utmost are always in danger, and that wholesome culture is far the best for amateurs.

POTTING AND SHIFTING.

The only difference between potting cuttings that have struck root, or seedlings, and shifting from one pot to another is, that in the former case we save all the fibres, and spread them carefully out, and in the other, we disturb the ball of earth as little as possible. We can accomplish the former best by putting the compost in the pot in form of a cone, as full up, just as high as is required to let the plant be a proper depth. The roots are easily placed round the cone, and have no violence done to them in pressing down the root. The fibres all rest in a sloping position downwards, and by pressing the top soil gently round the sides first, they are kept so, whereas, if the soil were flat on the surface, they would be spread horizontally, and many would be broken. When the soil is gently pressed round the sides, a tap or two will sufficiently establish the plant, without further pressure. In shifting from one pot to another, it is not necessary to remove the drainage. Such as fall awry may be got rid of, but never pull out any of the crocks that stick to the ball. Let the soil be put in as with cuttings that have rooted highest in the middle, and of such height as will require the ball to be pressed down upon it, to the exact place you want it, for the cone gives way easily, composed with an even surface. The new soil must be poured down all round, by turning the pot, and gently pressed down with a piece of wood, blunt at the end, but not more than half as thick as the vacancy. As Geraniums are not injured by soil up the stem, it is proper to lower them in their new pots, to lessen the height of the stem, if it be too long, and the pots should be filled up so as to leave half-an-inch to hold water; the half-inch of almost any sized pot will hold enough water to go all through the soil, and nothing is more necessary than to provide space for enough, as we should otherwise have to stand

by, and fill more than once, or let them go with too little water, wetting only a portion of the fibres, when all want it alike. When plants are potted or shifted, they should be watered, shut up, and shaded for a day. When they have fairly started again, the small plants shooting up should have their points pinched out, and slow specimens should be watched, and as their shoots lengthen, they should also be checked, until they become as bushy as required. It frequently happens that particular branches take a sort of lead, and grow more vigorously than the rest of the plant. Let them be timely checked, or the plant would grow uncouth. Much more depends on this than many people imagine, and if they once get wrong, it is difficult to bring them under subjection.

[To be continued.]

Mr. Glenny's Floral Writings.

A FEW WORDS ABOUT ROSES.

NO man has, so far as I am aware, done more for flowers, and to correct the tastes of florists, than Mr. Glenny. His Hand-book I have, and commend it to the public. In flowers, with the exception of winter blue Violets, and a few Hollyhocks, to back up a Rose bank, I do nothing. About seven hundred Roses take up my spare room; and, indeed, with these, I want no other flowers. They begin early, and end late—on the 10th of January, this year (the 20th, last year), I cut a beautiful opening bud, with clean foliage,* of Geant des Batailles. Speaking,

*NOTE.—My Roses, for seven weeks at the spring of the year, were syringed, and dusted with yellow and dark (vivum) sulphur, in equal parts. The consequence has been, that, with the exception of Bedeau, Brea, Naome, and Mrs. Rivers, I have not suffered from rubige or blights, and scarcely anything from aphids. Mr. John Milne, of Hull, an enthusiastic Rose grower, says, that “he followed my nostrum (hardly mine, except the “vivum”), and that his foliage has been more admired by gardeners and gentry than even his Roses.” If the

however, of Mr. Glenny's writings, there is an article in your December number, page 416, entitled "The Points of Perfection in Plants," well-worthy of the study of florists and judges. The concluding words ought to be stereotyped over the doors of all exhibition rooms. He says:—"The vulgar taste that values things according to size has so laid hold of some men, who act as judges, that they seem to have lost sight of one of the most important points in a gardener's practice—the necessity of growing things according to their natural habit; and so they admire plants as farmers prize a hayrick, by the number of loads it contains, indifferent to every other consideration." It is not, however, of Mr. Glenny as a florist I am about to speak, but as a Rose writer. In Richlieu's treatise, in No. 6 of the Horticultural Society, containing sixty-nine columns on Rose treatment, he gives, from Mr. Glenny's work on "Flowers and Plants," a most masterly description of the points of perfection and imperfection both in Roses and Rose trees. His remarks relate to the properties of Moss Roses, Noisette Roses, Climbing Roses, single show blooms in stands, and Roses in general.

To talk of Roses!

"Warms me and charms me,
To mention but their name!
It heats me, and feeds me,
And sets me in a flame."

If the readers of your November number, page 385, should happen to read Mr. Rivers's December article, in the FLORIST, they will see my observations on Exposition, Ravel, and Rebecca justified. Next year, I shall be able, if alive, to give an account of newer Roses, and of "novelties."

foliage of one year suffers from rubige, the mischief, in delicate sorts, will extend to the next year. For instance, in 1847, Brea was much rubigenated, and, in 1848, the leaves came out completely yellow, or jaundiced. Last year, I had one or two Roses afflicted with black-patch on the leaves, arising, I think, from want of free drainage; there the Rosebank has been bricked up. More attention must be paid to foliage than has hitherto been the case. From attention to this, with watering, manuring, and shading, I have never had such a glorious Rose summer.

First : of the newer Roses, such as Vidot, Alphonse Karr, Adelaide Fontaine, Lamartine, P. Imperial, Berceau Imperial, Duc d'Elchinger, Brunene, Murat, Alice Leroy, M. Herand, Patussi, Gustave Coraux, M. Reigmer (a good Rose, I think), Prince New, and Moskawn, both very dark. (H. B.), C. Lawson, (N.), Madame Massot, (N.), Rennes, (Perpetual Moss), Ory.

Second : of the novelties. (Bourbons), Lepsestre, Monsieur Jard, the last is the best wooded of all the novelties sent here, very robust. (Hybrid Perpetuals): Gloire de Lyons, Eveque de Nimes, Lœlia, Monsieur Montiguy, Duc de Cambridge, Lord Palmerston, Dr. Henson (white), Duchesse de Polignac, Mademoiselle Goddard, Marie de Posterner, Reine des Denmark.

The two Eveque de Nimes are on thirty-inch Dog Briars. If any of your readers should wish to know anything of any of the above, next year, I shall be happy to give them information. At the same time, decisions on pot Roses should be cautiously given.

I will now conclude with thanking you, Mr. Editor, for your labours, and for the pleasure and edification which your cheap and nice work has afforded me, and by assuring you that I will endeavour to make it known more widely to the neighbourhood and elsewhere.

W. F. RADCLYFFE

Rector of Rushton, Blandford, Dorset.

Planting Tulip Seed.

THE first thing to be aimed at is suitable soil for the purpose, and the next, a suitable receptacle for the soil. I prefer pots, about twelve size Carnation pots. Some prefer pans and boxes, but any of them may be made to answer the purpose better than the open ground. Don't be over nice about the soil being made up from different ingredients, but take a little good fresh loamy soil (not too heavy) from the garden or field, which was manured for Potatoes or vegetables. Chop and mix it up with plenty of sand,

taking care to clear it of wire and other worms, and insects of every description. Sift the whole through a pretty open sieve, and, whether for pots or boxes, be sure and give plenty of drainage. Then fill up to within four inches of the top, with the soil just described. Just that part of the soil where the seeds are to be planted should be composed, however, of one-half soil, passed through a fine sieve, and the other half sand. Fill up to within half-an-inch of the top, and instead of laying the seed flat, take each one between the finger and thumb, and press them edgeway into the soil, with the germ downwards, which, if the seed be bright and good, will be seen by holding it up to the light. Choose your own distance, as to placing the seed, according to the quantity—three-quarters of an inch is about right. After the seeds are so placed, with some very fine soil, cover them about half-an-inch, not more; this should be light. The germ of the seed strikes downwards, to form the bulb. After they have been thus placed (boxes or pots whichever they may be), in a cool frame, they must there remain, till the seeds have made their appearance, taking care, at all times, to cover well at night, and protect against frosts. Any Auricula or Polyanthus grower will have frames for this purpose, but for those who have not, the house or chamber window will do very well, till the plants begin to show, when they will require moving. Fresh air should be given. The best time for the planting of Tulip seed is the last week in January, or the first week in February.

J. HEPWORTH,

Hendries Gardens, Lea Bridge-road, Leyton.

My Greenhouse.

FEBRUARY is an interesting month, in this department. The Acacias and Hoveas are showing their advancing buds, and some are in flower. Geraniums are growing fast. Camellias, which form a great feature in a mixed collection of plants, and

do not come in bloom altogether, give us many flowers. Cinerarias are in bloom partially, if not fully, and, among other plants, assist to make the shelves and stages lively. Great pains must be taken now to give abundance of air, but all draughts must be avoided.

PLANTS must be carefully raised, and, if necessary, lose some of their useless or superabundant shoots. Tropæolums and other delicate subjects should have their branches directed day by day, for if they are left to cling to anything, or to tangle their own shoots, there is great difficulty in unwinding them, or releasing the tender shoots without damage. They must be placed near the light, and have plenty of air.

SEEDS, of all kinds, requiring greenhouse temperature, may be sown in pans, or wide-mouthed pots. It gives the young plants the whole summer to get established, and enables the cultivator to get them into good order, to stand the winter.

AZALEA INDICA now begins to swell its buds, and indicates the nature of its bloom, whether scanty or abundant. Let the earth be stirred on the surface, the loose soil thrown out, and top dressing of fresh earth be put on. They will now require plenty of water, as they swell their buds, and until after they bloom. The more air they, as well as other greenhouse subjects have, on mild days, the better. All the small plants, that are growing up, will require shifting, if their roots have reached the sides of their pots. Seeds may be sown in pans or boxes, or wide-mouthed pots, and when they begin to vegetate, they must be shaded.

PRIMULA SINENSIS.—These, from seed, must be examined, and the good ones selected, or, if they predominate, the bad ones rejected. In this tribe of plants, the fimbriated edge seems a decided character. Double ones are scarce; but the most rich and beautiful have almost a double row of petals, for they overlap each other considerably. The largest, the brightest and purest colours are most esteemed, and, unless the flower be circular, it is worthless; the stem should be tall enough to throw all the flowers above the foliage. If the edge be smooth, with no indentation, and perfectly circular, it would be highly esteemed, but all the smooth-edged ones hitherto raised, are deeply indented between the divisions, and notched as deeply in the centre of the petal. At all events, the diminutive flowers, of all colours and characters, may be discarded, unless the plant and foliage are small in proportion, and none but circular flowers, whether fimbriated or plain, need be kept. Seed may be sown this month, but, in saving seed, it should be gathered from good flowers only, and this plant may be propagated by parting the root after flowering, as soon as the side growth commences, and gets strong enough to part, attached to a bit of root.

FUCHSIAS may be top dressed, and the young shoots that are not wanted, may be struck as soon as they are an inch long. Except for increase, let no inward shoots grow; small ones, that have filled their pots, may be shifted to larger ones, and all the established plants should be repotted as soon as they begin to grow; but before they are allowed to grow at all, they should be pruned into a goodly shape, and every morsel of weak wood be removed. Those that have been kept in pits, should be removed to the greenhouse, pruned close, and set to work. Sow seed.

CINERARIAS, from seed, should be selected for their good qualities, and all midling and common ones discarded. The best, that is, those which are most perfect in the circular outline, broad in the petal, large inside, and brilliant in colour, may be saved, for propagation, and for seed. Seed may be sown. Temperature, by day, forty-five degrees, with air; fifty, without; forty, at night.

G. GLENNY.

Lawn and Shrubbery Management.

THE lawn must be attended to all the winter. In the first place, worm casts are abundant, and these must be spread about. Bush harrowing is the best remedy, upon a large scale, but brushing them about with a common birch broom will do for small ones; rolling afterwards is essential, and then mowing is easy and clean work, particularly with Boyd's patent machine, improved, and can be used when grass is wet. Every month, in fact every thaw brings this upon us, and between the frosts, in winter time. There are some of the grasses that would soon grow into thick turnipy turfs, if not regularly cut down. Continue, therefore, to attend to these particulars, for if neglected, the lawn soon grows rough, and the coarse grasses will get a-head.

PRUNING the various shrubs, from time to time, as you observe a disposition to wander, and grow out of form, becomes an important duty. The year's growth must be watched, and if too vigorous, it must be checked, only that care must be taken not to cut away blooming branches or buds. In all cases where bloom buds are set, you must be aware of what you cut away. Blooming shrubs should always be pruned directly the bloom decays, and before the new growth that is to flower the next year is made.

RHODODENDRONS.—Show every bud that is to bloom, but there are many branches that have no buds at their apex. Any of these that are out of form may be cut back at once, and even bloom buds, if you think it will improve the form of the bush.

Lilacs, Almonds, *Pyrus japonica*, *Crategus*, the double-flowering Cherry, Mountain Ash, and other blooming trees and shrubs show their flower buds. You may, therefore, prune out all the barren shoots, that grow inside the head or bush, without sacrificing a single flower, and it should all be completed this month.

HONEYSUCKLES AND ROSES, on poles, or walls, or fronts of cottages, or trellices, should be pruned and nailed. The Roses may be cut back to any extent, without sacrificing the bloom, for their flowers come on the wood of the current year's growth; but we should not prune before the middle of February.

STANDARD ROSES, in shrubberies, must be pruned, as in the flower garden, except that, if they grow among shrubs, you may be more careless of them rambling, but you must frequently examine them, to see if their stocks are growing, or sending up suckers, for these will, in a very short time, supersede the head, and kill it altogether, such is the struggle nature makes constantly to reclaim what art has taken from her. A vigorous shoot from the Briar stock of a fine worked Rose would, if undetected, kill the head in one season, hence the necessity of constant examination.

THE GRASS VERGES are apt to spread into the paths, and to encroach upon the clumps, if not checked, therefore, with a proper edging iron, cut them back to their original dimensions, leaving a perfectly smooth edge, for nothing looks worse than coarse rough edges to a smooth lawn. If shrubs are growing into one another, and likely to spoil both, consider whether either or both shall be removed; sometimes one is sufficient to disturb, but it often happens that both should be taken up and one planted between the spots where each stood; the other may be planted in any place that is thin, or that it will improve, but it ought to be done this month, and before the buds swell. We are no advocates for delay in garden matters, but still, people, from many causes, may wish to plant now, and, if the weather be fine, and the ground in good order, they may do so with impunity, only, bear in mind that all the roots must be saved, at taking up, and planted before the fibres have time to dry.

AMERICAN PLANTS may be removed at any time, even while in bloom, though that is courting mischief. Azaleas, Rhododendrons, Kalneas, Heaths, Andromedas, and others that grow on peat, can be removed with a ball that would alone be sufficient to sustain them through their bloom, without planting at all, so that peat beds may be formed now, and furnished with plants, without the least fear of failure, and, by choosing those well set with bloom, splendid additions may be made to the lawn and shrubbery, without the most remote chance of failure.

Notes and Queries.

WILL you kindly give me a reply in your next month's *Florist*, to the following queries, respecting the culture of the undermentioned *Liliums*, viz., *Javanicum*, *Exunemia*, *Venustum*, *Candidum*, *Pumilum*, *Atrosanguineum*, *Chalcedonium*, *Catesbi*? Are they all of them perfectly hardy, for out-door culture, that is, to remain in the ground through the winter? What is the best soil to grow them in? To what height do they respectively grow, and their time of flowering? When ought they to be planted, and how deep? I presume they are all well worth growing. Excuse my troubling you with so many enquiries.—*JACQUEMINOT.

—P.S. I was grieved to see the *above *Rose* so *cruelly handled* in this month's number, particularly when in the bud state, which, of all buds, is, to me, the most beautiful. I shall never forget the delight with which I brought out my wife to the garden, one morning, before breakfast, to see the first flower of this said *Rose* apparelled in his most gorgeous livery.

I am the occupier of an allotment garden, which I have planted and fenced with Quick. I wish to know if I can legally remove the Quick fence, trees, and all that I have planted?—AN AMATEUR AND SUBSCRIBER.

Will some one of our readers or contributors please give the names of twelve best herbaceous *Phloxes*?

OBITUARY.—On the 17th of November, 1858, aged 52 years, Mr. William Emony, of the Red Gate Inn, Spratslade, near Longton, Staffordshire. A good supporter of Tulip and Gooseberry shows for upwards of eighteen years; much and deservedly respected by a large circle of friends. Some short time since, he purchased a quantity of seedling Rhubarb, and amongst them there are several very promising sorts, beautiful in colour and flavour, quite surpassing anything I have seen before. It will be a great pity if it does not get into some person's hands that will not let it be lost.

Calendar of Operations.

AZALEAS.—Pick off all dead leaves, flowers, seed pods, &c. Repot all your plants that have commenced their growth, and specimens that have down flowering, and encourage, by a gentle heat in a pit, or recently-started forcing-house. Syringe the plants freely on sunny days. Introduce fresh plants into the forcing-house, for succession, as fast as others are removed to the show-house. Give air freely to the plants that are wanted to flower in late spring.—E. CLEETON, *Dumbleton, near Evesham, Gloucestershire.*

CHRYSANTHEMUMS.—(Large Flowering Varieties, Grown on Single Stems, as Specimen Plants, for Exhibition.)—Those growers who have availed themselves of my instructions, in the January number, will, by this time, have their plants fairly established in three-inch pots. Their first object now should be stopping the plants, which should be done at once, without delay, that is, if the strength of the plants permit of it. The number of breaks or shoots you desire to ensure, must depend on the vigour of your plants, and the cultivator's judgment must be exercised. I would advise him to leave from six to seven eyes; should he leave more, the chances are that the lower eyes will break weak, and may then not emit any shoots. Remember, in proportion to all the attention bestowed on the training, &c., of the plants, in the earlier stages of their cultivation, so will be your reward, by the perfection of future growth and flowers. Do not attempt to shift them into six-inch pots, till the eyes have visibly developed themselves into shoots. Let the compost be the same as previously recommended. Take care to use clean pots, and plenty of drainage. By no means allow the frost to affect any of the plants you intend for pot culture. There is a difference in the constitution of many of the varieties of Chrysanthemums, and a knowledge of which can only be acquired by observing the habits of the plants; some will bear several degrees of frost, while others are susceptible of the slightest. But the wisest plan of the two is to exclude it from them altogether. Be sure and afford the plants plenty of air, on all favourable opportunities, as that will materially strengthen them. When giving air, observe the wind's course, as an easterly or north-easterly wind, if allowed to have free access to the plants, will be injurious to them. Subjoined is a list of a few of the popular varieties, now grown as specimen plants, for exhibition:—Annie Salter, Beauty du Nord, Albine, Christine, Defiance, Phidias (Salter), Mount Etna, Pilot, Dr. McLean, Madame Cammerson, General Havelock, Vesta (early).—R. OUBRIDGE, *Stamford-hill, Stoke Newington*.

CINERARIAS.—The show plants will repay for any extra time spent in training out, and giving light and air to the centre of the plant. Those who have treated their plants as recommended in these pages, from time to time, throughout the season, will by this have large bushy plants. A regular head of bloom may be ensured by regulating the shoots now. Manure water may be given with safety, and with very beneficial results. The plants must never be allowed to get dry, or the foliage will be spoiled. On favourable days, give abundance of air, but avoid cold draughts to the plants. Greenfly will be busy, and, if not destroyed, the plant will not thrive, and the beauty will soon be gone. Seedlings will begin to be gay. Offsets of named kinds, if put in now and kept in the cutting-pots till June, and then potted off, will make very fine plants for specimens.—JOHN DOBSON, *Woodlands Nursery, Isleworth*.

EARLY VINERY.—*Forcing Department.*—From the continuance of mild open weather, all kinds of forcing will be considerably enhanced, as well as the saving of fuel. Great benefit to the inmates will also be derived from a liberal supply of air being admitted at the top, on all fine days. Keep a vigilant eye on the thermometer, not allowing the temperature to fall below seventy degrees. Close the lights early, and, should watering of Strawberries, sprinkling the stems of Vines, &c., be required, do it in the fore part of the day, between the hours of eleven and one, that the moisture thereby caused may escape before night. The less humidity during the night, at this early season, the better. As soon as the leaves are fairly expanded, the temperature may be raised to sixty degrees by night, and seventy by day.—*Peach House.*—The heat here may be increased a few degrees, with plenty of air at the top, giving the trees a light syringing overhead on fine mornings, and closing the house early. Avoid, by all means, high night temperatures, and keep a log of nature's own forcing of the Peach outside, which you will find of the greatest benefit to you in your operations within.—*Fig House.*—Examine the roots, and, if dry, give them a good soaking of rain water.—*Late Vinery.*—See directions for last month.—M. BUSBY, F.H.S.

EPACRIS.—Keep all decayed flowers picked off, and, as they go out of bloom, cut the old flowering shoots out. Place the plants in a close frame or pit, where the night temperature can be kept up to fifty-five degrees. When they break and attain two or three inches long, thin them out to the number required for the next year's flowering, say six shoots to a four-inch pot.—P. S. I shall say something about potting in my next.—E. CLEETON, *Dumbleton, near Evesham, Gloucestershire.*

FUCHSIAS.—The early plants will be making rapid growth, and every encouragement must be given them, in order that they may grow strong. Liquid manure, occasional syringing, and a temperature of about fifty-five degrees will do this. When the pots are full of roots, repot them in some rich soil. Later plants may be managed in the same way. Cuttings may be put in, and potted off as soon as rooted.—JOHN DOBSON, *Woodlands Nursery, Isleworth.*

HEATHERY.—Provide a quantity of good fibrous peat soil, silver sand, crocks of various sizes, charcoal, &c., and see that every empty flower pot is well washed, and everything in order, for the Heath-potting season is at hand, and should be gone on with without further delay, repotting all plants, little and big, as they require it. In re-potting, do not elevate the collar of the plant higher than the rim of the pot; let thorough drainage be the order of the day; place a little charcoal over the drainage, and some good-sized pieces among the soil as the potting proceeds. Do not forget to give plenty of air, as before directed.—E. CLEETON, *gardener to E. Holland, Esq., Dumbleton, near Evesham, Gloucestershire.*

PANSIES.—As early as practicable, see to repotting the plants required to bloom in pots. Six or eight-inch pots will be large enough for any plants. Use a good friable loam, and well-decomposed cow dung, and a little silver sand. Pot them moderately firm, and see that good drainage is secured. The plants will not require to be watered for a few days, so that the light may be kept on for that period, just to start them; after this air may be abundantly given. Those in beds may have the surface of the soil stirred, and, where necessary, add a little fresh soil on the surface. These little attentions will encourage the plants very much. Replace any that may have been destroyed by the frost or wind. New beds may be made at the end of the month, if the ground moves well. See that the names are all in their proper places.—JOHN DOBSON, *Woodlands Nursery, Isleworth.*

PELARGONIUMS.—The May plants, or those shifted finally in the autumn, should receive two waterings, so that the ball of earth may be thoroughly moistened throughout. This is of the greatest importance, otherwise only the roots nearest the sides of the pot would receive any nourishment from the water. The June plants, that were stopped back in December, will be well started at the eyes, and may be shifted at once into the blooming pots, into moderately good soil. Shift, also, any young stock not already in their blooming pots. In shifting, rub off the outside and top of the ball. Commence watering with liquid manure, once or twice a week. The whole stock will be making rapid growth, and should be well attended to in tying out and regulating the shoots. Keep the greenfly down. Air may be given at any favourable opportunity. Keep the stock clear from weeds and yellow leaves.—JOHN DOBSON, *Woodlands Nursery, Isleworth.*

POMPONE CHRYSANTHEMUMS.—Those that have been well established, in sixtys, may now be examined, by turning out two or three, and if the roots have reached the side, they may be placed in forty-eights (four-inch). The pots must be kept clean, as before. After potting, return them to their places, close to the glass, to prevent draining. Give water sparingly, as an excess will cause too free a growth. Keep close for a few days. Those plants that have attained the height of from five to nine joints, may now receive their first stop, and if stopped at the time of potting, so much the better, as they will break freely whilst making fresh fibres at the roots.—[Chrysanthemum Seed.—I wish to correct an error in my last article, page 31. The price of the packet of seed was half-a-crown, and not a shilling.]—JAMES HOLLAND, *gardener to R. W. Peake, Esq., Spring Grove, Isleworth.*

TULIPS.—These will now be making their appearance, and the bed should be arched over, and protected from excessive wet and severe frost.—T. ALLESTREE, *Draycott, near Derby.*



MARCH.

The Tulip, its Beauties & Defects.

THE Tulip was introduced from the east, to the growers of Europe, about three hundred years ago, and although it has undergone various vicissitudes, there is no flower that has been cultivated with so much enthusiasm, or which has commanded so large a price. In Holland, in the seventeenth century, the famous Tulip mania took place; when roots, or parts of roots, made almost fabulous sums. The bubble, however, soon burst, and the Tulip is now cultivated by the Dutch as an article of commerce; many of the common and fancy varieties being yearly exported by the Dutch florists, with Hyacinth and other bulbs, into England. The Tulip has always been held in high estimation here, and the establishment of the National Tulip Exhibition not only gave an impetus to its cultivation, but, by bringing cultivators together from all parts of England, did much to smooth away prejudices respecting the properties of the Tulip. Although so long a favourite, and some varieties commanding so high a price, it does not appear that, until recently, anything was settled or agreed upon as to what constituted the beauty of the Tulip. Two properties that are now considered quite essential, viz., purity and shape, were probably entirely overlooked, and, until recently, brilliancy of colouring and regularity of marking were the points principally held in estimation. The Tulip consists of a stem, rising from a bulb, from half-a-yard to a yard high, six petals, six stamens, and ovarium, and is divided into three classes, but we think

should be reduced to two, viz., white and yellow grounds, and we shall thus consider them, which will be quite sufficient for our present purpose. The beauty of the Tulip then, we conceive, consists of a combination of the following qualities:—In the first place, the cup should, in size, be in proportion to the height of the stem; that is, a Tulip three feet should carry a cup proportionately larger than those that grow to a less height. For the shape of the cup, a celebrated writer has used some ingenious arguments in the first volume of the MIDLAND FLORIST, to prove that the cup, to be perfect, should form one-half of a globe, and that the top of each petal should form a curve, the radius of which is equal to half the diameter of the circle; while another contends, that from one-half to one-third of a circle is good. Although we incline to the latter opinion, because many Tulips will expand to one-half of a globe when young, and before they are past their best will expand to one-third, we do not think that any arguments can be produced that will prove it less beautiful, in any of its stages, between these two points. The top of each petal should form a graceful curve; the mathematical exactness falls to the ground. The petals must fit close, be all of the same height, expand and close together, and when expanded, even to as much as one-third of a globe, be sufficiently broad to allow no interstices between them, the petals must also be of good substance or fleshy, and perfectly entire on the edges. The base of each Tulip must contain a good circle of perfectly pure white, in roses and byblœmens, and yellow or lemon, in bizarres, quite free from any stain or spot whatever. In feathered flowers, the feathering must be of a uniform colour, commencing about the circumference of the ground colour, and, whether light or heavy, must be uniform in breadth, round each petal, except the tip, which may be rather heavier, and the commencement of the feather, at the base, which may be narrower. In flames, the flame should commence at the circumference of the base, without any stain of the same colour as the feather, and, whether heavy or light, should send fine branches to the feathering, and not

break through, and only very lightly at the tops of the petals. The markings may vary in colour from nearly scarlet to black, but must be uniform, not of different shades, and must be bright, not dull. These are the principal points that constitute the beauty of the Tulip. We will now shortly glance at its defects.

In the first place, any stain in the ground colour or stamens is a disqualification, and Tulips with this defect, are of no value for exhibition.

Second. The cup when long, the petals thin and pointed, which causes them to quarter, when expanded, and the tips recurved, may be set down as great defects.

Third. The cup when it deviates from a regular curve, when the three inner petals close, and the three outer stand off, instead of closing altogether, as in David, when the cup collapses, and never sufficiently expands, and finally drops of, in a half closed state, may be set down as detractions, in a high degree.

Fourth. When a tall stem carries a small cup, and a small stem an extra large one, are objections on the bed, but not on the exhibition board, irregularity of feathering, the beam too broad, without branching into the feathering, and breaking heavily through at the top, much lighter in colour than the feathering, and the colours dull, are minor defects.

With this introduction, we intend, in future numbers, to go over most of the varieties at present in cultivation, but we may just observe that the cultivation of the Tulip possesses a charm that does not belong to any other flower, and, as an eminent living philosopher says, in regard to a taste for reading, "if I were to pray for a taste which should stand me instead, under every variety of circumstances, and be a source of happiness and cheerfulness through life, and a shield against its ills, it would be a taste for reading." We would subscribe heartily to the above, but wish to add a love and cultivation of flowers, and the Tulip in particular.

[To be continued.]

T. ALLESTREE,

Draycott, near Derby.

Select List of Florists' Flowers.

AT the commencement of last season we gave select lists of various florists' flowers. The following lists are kindly forwarded by Mr. E. Morley, of Brampton, near Chesterfield, and have been proved by him to be good. We shall be happy to receive other lists from correspondents.

PINKS.

DARK LACED.

Colchester Cardinal	Auckland's Mary	Mrs. Norman
Huntsman	John O'Gaunt	Criterion
James Hogg	Black-eyed Susan	Mrs. Judd
Mango	New Criterion	Purity

RED LACED.

Sarah	Theresa	Fanny
Ruby	Joseph Sturge	Elizabeth Gair
Kohinoor	Anne Maria	Ld. Chas. Wellesley
Criterion	Dan O'Rourke	Esther

DAHLIAS.

Perfection	Roland	George Glenny
Lady Franklin	Morgan King	Goldfinder
Touchstone	Beauty of Slough	Ada
Royal Scarlet	Edwards	Essex Triumph
Pre-eminent	Captain Ingram	Bishop of Hereford
Sir F. Bathurst	Mrs. Wheeler	Duke of Wellington
Princess	Rachael Rawlings	Lady Folkstone
Amazon	Sidney Herbert	Fanny Keynes
Grand Sultan	Triomphe de Pack	John Keynes
Sir C. Napier	Fanny Dodds	Mrs. Charlesworth
Cherub	Admiral Dundas	Empress
Lady Popham	Lilac King	Miss Caroline
Lollipop	Fearless	Dazzle
Lord Palmerston	Robert Bruce	Admiral
Colonel Windham	Louisa Glenny	Hon. Mrs. Trotter
Pandora	Incomparable	General Faucher
Lord Bath	Scarlet King	Agincourt
Midnight	Mrs. Edwards	

FANCY DAHLIAS.

Attraction	Baron Alderson	Cockatoo
Conqueror	Duchess of Kent	Cleopatra
Carnation	Miss Frampton	Pigeon
Inimitable	Charles Perry	Comet

PANSIES.

WHITE SELFS.

Royal White	White Model	Alba Magna
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YELLOW SELFS.

Yellow Model	Mrs. Dodwell	Yellow Climax
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DARK SELFS.

Defiance(Aucklnd.)	Gem	Flower of the Day
Dred	Jeannie	Memnon

YELLOW GROUNDS.

Cyrus	| Mrs. Hope	| Lord John Russell
Alice	| Refinement	| Sir J. Cathcart
Duch. of Wellington	| General Williams	| Lord Palmerston
Monarch	| John Walton	| Napoleon

WHITE GROUNDS.

Royal Standard	| Beauty	| Mrs. Auckland
Countess of Rosslyn	| Una	| Maria
Miss Talbot	| Colonel Windham	| Sir E. Lyons
Royal Visit	| Miss Walker	| Sir C. Campbell

A Review of the Fuchsias,

SENT OUT SINCE 1852.

HAVING bought all the new Fuchsias sent out during the past seasons, as soon as they have come out, and in quantities of from one to a dozen of a sort, and also having flowered several, in moderately-sized specimens, the same season, I have been able to form a tolerably accurate opinion of their respective merits.

In the spring of 1853, I reduced the numerous sorts let out previously, to thirty varieties, with the exception of species and bedding sorts, and have, every season since, added those sent out, placing every season's sort in a separate column. I have struck out of the different columns such as were superseded by others, and find now, that out of the thirty, considered

then as the cream of the various seasons, not one remains, they having been struck off, one by one, until of the lot none could now be tolerated.

Of seventeen, bought in 1853, I find five sorts still retain their ground, two or three of which bid fair to do so for some years. These are England's Glory, Duchess of Lancaster, Lady Franklin, Brilliant (Smith), a distinct red sort, and a continental variety, named General Changarnier, which is only useful on account of its being the nearest approach to orange or yellow.

Of the seventeen, sent out in 1854, I find only one left, viz., Queen of Hanover, which is still one of the finest white varieties.

Of the twenty-eight, I bought in 1855, including white, striped, double, and all manner of corollas, I find left, Maid of Kent, Mrs. Story, and Orlando (Smith's), the most useful black corolla yet.

Of twenty-five sorts, bought in 1856, I find Wonderful, Emperor Napoleon, Donna Joaquina, Conqueror (coarse, but the most showy red), General Williams, Venus de Medici, Roi de Blancs, and Countess of Burlington.

After this time several raisers, who had sent out great quantities of rubbish, and, probably finding no longer a market for it, seem to have retired from the field, and to have left it almost entirely to Messrs. Banks and Smith, the former of whom has done more for the Fuchsia, in raising good useful varieties, than all besides. Among those who retired, I would not include Mr. Story, who had, in striving to raise sorts distinct, by crossing with species, produced mere curiosities of bad habit, and burdened the trade with much useless rubbish; after great pains in raising several generations from an insignificant white corolla'd species, just as they were improved to such perfection as to match the dark and white classes, died, before they could be sent out. These now form a distinct class, second only in usefulness to the dark and white varieties, and for which every Fuchsia grower is greatly indebted to Mr. Story. I find that, of all the sorts ever sent out, I have considered worthy of retaining, twenty-three have been raised by Mr. Banks, and

eleven by Mr. George Smith, though Mr. Smith's eleven are very low in the list, compared with Mr. Banks's.

Of the twenty-two, of 1857, I have left fifteen, viz., Catherine Hayes, Little Bo-peep, Souvenir de Chiswick, Albert Smith, Fair Oriana, Fairest of the Fair, Silver Swan, Antagonist, Princess Royal, Tristram Shandy, Little Treasure, Marchioness, Adonis, Una, Daniel Lambert. Eight of these may retain their ground for some years, but the last six are condemned to remain only one year longer.

Of the lot sent out in 1858, twenty-one varieties, nearly all were useful, except a batch of six, sent out by a new raiser, all of which seem some six years behind their time. These may at once be consigned to the rubbish heap. Those left are twelve, viz., Prince Frederick William, Queen of the Sea, Masaniello, British Sailor, Loch Katrine, Kitty Tyrrell, being the best dark, and Guiding Star, Rose of Castille, and Prima Donna, being the best light, the finest being placed first in rotation; also Princess of Prussia, white corolla.

The position of each, in their respective classes, will be something like the following, though about the first half-dozen, in each class, are pretty nearly equal in quality.

DARK VARIETIES.

Catherine Hayes	Loch Katrine
Souvenir de Chiswick	Orlando
Prince Frederick William	Kitty Tyrrell
Queen of the Sea	General Williams
Little Bo-peep	Tristram Shandy
Masaniello	Conqueror
Albert Smith	Wonderful
Donna Joaquina	Adonis
British Sailor	Daniel Lambert
Emperor Napoleon	Little Treasure
Governor General	Othello

LIGHT VARIETIES.

Fair Oriana	Prima Donna
England's Glory	Maid of Kent
Guiding Star	Lady Franklin
Fairest of the Fair	Venus de Medici
Queen of Hanover	Antagonist
Duchess of Lancaster	Marchioness
Rose of Castille	Roi des Blancs
Silver Swan	Una

WHITE COROLLA'D VARIETIES.

Princess Royal	Princess of Prussia
Mrs. Story	Countess of Burlington

FANCY VARIETIES.

Brilliant (Smith)	Fulgens
Dominiana	Souvenir de la Reine
Serratifolia floribunda	General Changarnier

T. STAFFORD,

*The Nurseries, Hyde, near Manchester.***A New Vermin Destroyer.**

FROM CHAMBERS'S JOURNAL.

AT a late meeting of the Academy of Sciences, at Paris, M. Millot Brule exhibited a black powder, obtained from a purely natural subject, which, should it come into general use, will gladden the hearts of gardeners. If you have a plant or shrub that you wish to preserve from noxious creeping things, you draw round it a circle of this black powder, and not a snail, or slug, or worm, or maggot will attack it, for no sooner do they touch it, than they are thrown into convulsions, which speedily kill them off. A whole bed or plot may be sprinkled with it, and with the like results, without injury to the garden; on the contrary, the powder is a good fertilizer. It is said to be a specific against the Grape disease, and that if blown lightly into an infected bunch, the vidium or fungus is seen to curl up and perish—killed as surely as the snails.

The composition of the powder is no secret. It is nothing but a species of lignite sulphur coal, as the Germans call it, ground fine. Large beds of it exist in many parts of the continent. Ardennes abounds with it, and it was with lumps dug from that region that M. Millot Brule made his experiments.

Referring to the statement in the September number, concerning the insecticide powder, exhibited to the

academy, by M. Millot Brule, we take the opportunity to mention here, that the sulphur coal, of which the powder is said to be composed, exists abundantly in England, and is known amongst geologists and miners as "coal brasses." Large quantities are raised near Halifax, and used in the manufacture of vitriol and copperas, as also in the adjacent counties of Lancashire, Durham, and Northumberland.

Where is it to be?


WHERE is what to be? is the echo of a thousand readers, as they glance at the title. Well, if they will have a little conversation with me, I'll tell them. We want a first-rate floral exhibition in the Midland Counties. This is a fact that no one will for a moment dispute. What I mean by first-rate is, a show where we can, instead of going to Chiswick or the Crystal Palace, see something of what is going on in our floral world. This exhibition must, in a measure, not only be an exhibition of flowers, but a fete. We must have it so as to draw the people. Moira is something like what we want, only the accommodation is too limited, if it rains, and the distance too far. Where is it to be, I again ask? But, says some reader, don't be in too great a hurry; let us have a little time to consider if it is possible to get up an exhibition of this sort. Who will run the risk? We don't wait for this to be answered. A floral, yes, Midland Floral Exhibition, must be held, conducted on a first-rate and pleasing principle, and it needs no risk. The people appreciate these favours. A suitable place is Nottingham Arboretum, but as this is not possible, why not get His Grace the Duke of Newcastle to grant us the favour of Nottingham Castle, and its grounds? If this cannot be done, why not Derby Arboretum? Let first-rate prizes be given; let first-rate flowers be brought, and you will find plenty of company. Let it be in the open

free air; let us have music; ah, and if the people like, dancing too, at this shrine of Flora, and we shall then have such an exhibition as we want. What is such an accompaniment to flowers as smiling faces and happy hearts? Let twelve, or, if you like, eighteen gentlemen, form themselves into a board of directors, and you will find no lack of help. Now, Mr. Editor, I hope you will try and do something for us. You turn secretary, and I am sure we should hold an excellent show. I have enclosed you an advertisement for the MIDLAND FLORIST. I hope, if any gentleman has any suggestions to make, that he will do so as early as possible, as, if we are to have a show, this year, we must decide, and decide quickly, where it is to be.

TIMOTHY.

* * We can do little for our correspondent, except to insert his letter. As for our accepting the post of secretary, we cannot do so; there are numbers of men far more able to be found. The project is one we have heard talked over many times. We shall await the result, and shall be glad to hear an answer where it is to be.—[ED. *M. F.*]

Seed Sowing.

OW many seedsmen have been blamed for selling what people have called bad seed, when the failure has been caused by the grower's bad management? Nobody can tell. But, as there are several modes of killing seeds, some by over attention, some by culpable neglect, a few words on sowing and after-management may answer innumerable enquiries, and, perhaps, awaken attention to the few conditions that are absolutely necessary to the fair development of all seeds. First, we have to consider that the soil in which we sow seed must be in good condition to receive it, that is to say, in good working order, neither too damp nor too dry. Next, that it is properly composed. Take a handful and squeeze it into the shape of the

hollow of the hand ; if you can lay this down on the board without breaking it, and, by little pressure, break it into powder again, there will be nothing amiss as to condition. With regard to its composition,—leaf mould, loam, and turfy peat, rubbed through a sieve, and decomposed dung. If this appears too stiff, give it a little silver or clean river sand. Large and fat seeds are difficult to kill, but we have some as fine as dust, viz., *Calceolarias*. Let the coarse seeds be covered as thickly as themselves, and small seeds should be covered as lightly as possible. With the former there is no difficulty ; but, remember one thing ; if, after the seed swells, it is once allowed to get dry, it will not germinate, and then people cry out against the seedsmen. To sow very small seeds, it is necessary to level the top of the soil with something flat, say the bottom of another pan or pot ; the object is to press it smooth. The smallest seeds may then be sown as thinly and evenly as possible ; then the advantage of the plain smooth surface is seen ; for if it were rough and crumbly, the dust would sink too deep in the holes and corners. Now we have only to take a sieve and sift a little silver sand over the surface, just thick enough to whiten it, and no more. As this must not be allowed to get quite dry, the next thing is, how to water it, without washing the seeds up. If we happen to have one of Read's syringes, with the finest rose upon it, we can let a shower, and fine as dew, upon it ; if not, take a stiff clothes brush, dipped in water, held hairs upwards, and draw the hand along the surface of the hairs towards you, while wet, you will send a shower so fine that not a grain of sand will be displaced, but you must do it many times before you wet the surface of the soil. The seed, however fine, will then germinate, the roots striking into the soil, and grow, coming up through the sand. If this seed is too close, and it be not immediately thinned, the plants will damp off. Seeds, out-of-doors, should be always sown after rain, or after a good drenching with water the day before, because, to put seed into dry earth, is to consign it to a grave, unless rain quickly relieved it. There would be enough

moisture arise to swell the seed, and then a succession of dry weather is almost sure to kill most sorts, although there are some that will bear a good deal of ill usage. As a rule, therefore, when seed is once sown, it must not be allowed to get thoroughly dry; in-doors or out, it must be refreshed with water, until it is fairly up and growing. Again, when seed has once come up, it must be thinned, if too thick, for it will damp off; the plants will kill each other, and none of them will do well. In borders it is a common practice to sow annuals in patches, and, in most cases, they have fifty plants where there should be only five or six at most. In this case they ought to be sown very thinly, a dozen in a patch, instead of fifty or sixty, but, if more, they should be thinned, because it is impossible for them to grow well, if crowded. Half-a-dozen Sweet Peas, which are narrow, and run up directly, make a much better patch than a dozen. *Convolvulus*, *Nemophila*, *Coreopsis*, *Erysimum*, and such sorts should never be nearer to each other than three inches. Larkspurs also will grow infinitely better three inches apart than closer, although they do not spread. Many of the seedsmen give a good deal of seed for money, but perhaps not more than one-fourth grows, and when we see the reckless manner in which seeds are sown, it is well for some that it is so, for there is generally thrice as much left to grow as is necessary or proper. Sun and air are essential to everything, as, when they are crowded, they rob each other of what they most require.

G. GLENNY.

How to Grow First-rate Potatoes.

PREPARE your seed in the autumn, by exposing it to the sun, and when well greened, place them in baskets or boxes, with the eyes upwards, and store them away in a cellar, or any place free from heat or frost. Having thus secured your seed, your attention must now be turned to the soil in which you intend to plant them, which should be manured in

November or December, and well dried, leaving it as rough as possible for the winter. About the last week in March, dig out trenches, a yard apart, as for Celery, then put about an inch deep of ashes, made from the garden refuse, or any charred vegetable matter, upon which plant your Potatoes, twelve to fourteen inches apart, being careful not to break the shoot. When they are up, cover them with short straw, from the bottom of a stack, or any other similar material, which will preserve them from frost, and is an excellent article for the tubers to grow in. Let them be well moulded; the soil taken out of the trenches will give you ample means. If these instructions are properly attended to, I have no doubt you will be perfectly satisfied with the result. I have, this year, tried Lapstone Kidneys, upon this plan, and found them far to exceed my expectations. They average from thirty to thirty-five cookable Potatoes at a root, and half of them fit to be shown at any exhibition. I am convinced that this plan will not only produce a superior and highly-flavoured Potato, but will also turn out more than double the usual produce, as the yield of the last fourteen yards I gathered, was a four-bushel sackful.

J. L.

Chrysanthemum Exhibition.

ITS far too early to think of anything of the sort, said a friend to us, the other day, when we asked his opinion on a subject connected with a Chrysanthemum exhibition. Well, maybe it is for some folks, but not for us. The time is arrived, when, if it is intended to hold an exhibition, a stir should be made. We are making a stir in Nottingham, and mean to have the largest exhibition in the kingdom—rather large words, but nevertheless totally correct. But, says a reader, we have only a few, very few growers in our small town, and it is hardly worth while to have an exhibition. Well, friend, if you think so, why don't begin to talk

about an exhibition at all. It is not money that true lovers of flowers look to, although money, being a very necessary item, is a great help. It is very possible to get up among yourselves an exhibition of Chrysanthemums; say there are twenty growers, well, suppose these growers subscribe five shillings each, this makes five pounds, which we would put out in the following way:—For the best six plants, five prizes, viz., twelve shillings and sixpence, ten shillings, seven shillings and sixpence, five shillings, and two shillings and sixpence. For the best three plants, seven shillings, six shillings, five shillings, three shillings and sixpence, and two shillings. For the best twelve blooms, five prizes, nine shillings, seven shillings, five shillings, three shillings, and two shillings. For the best six blooms, five prizes, five shillings, three shillings and sixpence, three shillings, two shillings, and one shilling. These twenty prizes all amount to five pounds one shilling. The cost of a schedule printing would be very little, and if visitors were charged a trifle for admission, this would be easily met. Samuel Broome, or, as the newspapers call him, that kind Mr. Broome, in speaking about emulation (in that invaluable sixpenny Culture of the Chrysanthemum, which we hope everyone has), says:—“One of the practical results of emulation has been the formation of amateur Chrysanthemum societies, and the author flatters himself that he has laid the foundation of not a few of them, and, in no instance, has he been disappointed by their attainments. These societies, which can be formed by half-a-dozen, or more, neighbours and friends, he recommends to his readers. The prizes may be fixed at any amount decided on by the members, from five shillings upwards, and he feels sure that, putting the main object, viz., the cultivation of fine flowers, aside, the excitement arising from emulation, and the dissemination of kindly feeling, will be an ample reward. Turning, then, from this subject to the general one, of the flower itself, he hopes that it will soon, on account of its intrinsic merit alone, be as much appreciated and cultivated as it deserves. It is the only flower that blooms in the fall of the year, when all

others have passed away. When the trees are entirely destitute of foliage, when the grass on our lawns grows black and rank, and when the atmosphere is loaded with damp and fog,—then is the Chrysanthemum in its splendour; of all the gifts of Flora to the departing year, the choicest and the last.” Wherever there are growers of the Chrysanthemum, there let there be an exhibition. A word or two might be added about rules, very little, however, is necessary. Every plant must be grown on one stem, in a pot not to exceed — inches; the stem to be distinctly seen above the surface of the soil. This is the great foundation to work upon; all other regulations are subordinate. If any society is desirous of trying the experiment, we shall be happy to give a copy of the rules, and our advice.

Chapters on Roses.

CHAPTER I.

THE Rose! what shall we say in favour of the Rose, when it has been a universal favourite, from the remotest antiquity, when poets have sung its praises, in all ages, when it is not only an inhabitant now of every garden, but always has been? As Campbell, the poet, says,—

“Yet wandering, I found in my ruinous walk,
By a dial-stone aged and green,
A Rose of the wilderness, left on its stalk,
To mark where a garden had been;
Like a brotherless hermit, the last of his race,
All wild in the silence of nature, it drew
From each flitting sunbeam, a lonely embrace;
For the night-weed and thorn had o’ershadowed the place
Where the flower of my forefathers grew.”

If it has been deservedly such a universal favourite, how much more cause have we to be enamoured with it in our day, with our splendid modern varieties. In our earliest days, when the Rose was associated with all that is lovely and estimable in the garden, it was nothing,

comparatively speaking, to what it is at the present time. Nearly all the modern varieties have been raised by our Rose-loving neighbours, the French; only one variety of super-excellence, I believe, was raised in England, from seed, viz., *Devoniensis*, and this is superior to all other tea-scented Roses. The established sorts produce seed freely, in France, in consequence of the climate, which they rarely do in England, so we shall have to look to the French amateurs for a continuance of those improved and new varieties, which they have so liberally supplied us with of late years.

But it cannot be denied that numerous varieties are sent out or "placed in commerce," as the French call it, that are no improvements, or not distinct from kinds at present in cultivation. A few there are, indeed, sent out each year that are great acquisitions, but these bear but a small proportion to those offered for sale, and in taking up a catalogue of a French or large English grower, what a mass of confusion for the tyro; something like eight hundred varieties or more are described, arranged in between twenty and thirty classes (the classes vary with different growers); those who wish to form a small or tolerably large collection, of the best varieties, are quite at a loss what to select.

The genus, *Rosa*, contains numerous species, but not so many as were thought a few years ago, for, at that time, any wild variety, with a slight difference, was constituted into a distinct species; but the tide has set in in the opposite direction, with botanists, and they have set about reducing the number; many that were reputed species, in this and other genera, are reduced to the rank of varieties; however, the species of the Rose are numerous, and are indigenous, one or more, nearly to every country on the whole habitable globe. In France, grows wild, the *Rosa gallica*, and from this are derived the French Roses. The Provence, of which the old Cabbage Rose is the type, is a native of the Caucasus, and Provence, in France, and is derived from the *Rosa centifolia*, so called from the number of petals. The old Moss Rose that has so long been admired, and is still unsurpassed, is supposed to be a sport from the

common Provence, but we think much more likely a sport from a semi-double French Rose, as, in our garden, we have had the old Moss Rose producing flowers and shoots entirely destitute of moss and flowers, precisely like a semi-double French Rose. The origin of Moss Roses will be given when they are described. The French Roses, crossed with the Provence, produce the class called Hybrid Provence, and the two former, crossed with the China, Tea, Noisette, and Bourbon, produce the Hybrid China. The Hybrid Bourbon owe their origin also to the two former, crossed with the Bourbon. The old and esteemed Coupe d'Hebe is the representative of this class. The white Rose (*Rosa alba*) is a native of middle Europe; the damask Rose (*Rosa damascena*) is a native of Syria; the Scotch Rose (*Rosa Spinosissima*) is a native of Scotland; the Sweetbriar (*Rosa rubiginosa*) is indigenous; the Austrian Briar (*Rosa lutea*) is a native of the south of Europe, and, in all probability, the parent of the old double yellow Rose, that rarely opens its flowers in perfection; then we have the summer-flowering climbing Roses; the Ayrshire Rose (*Rosa arvensis*), a native; many-flowered Rose (*Rosa multiflora*), a native of Japan; the Evergreen Rose (*Rosa sempervirens*), a native of Italy; the Boursault Rose (*Rosa Alpina*), a native of the Alps; the Banksian Rose (*Rosa Banksiæ*), a native of Tartary; the Hybrid Climbing Roses, perhaps from crosses of the above; and the Prairie Rose (*Rosa rubifolia*), a native of North America, but the varieties of this, which the American nurserymen have exported, are now of no repute whatever. This concludes the list of the species, from which the summer Roses, in the catalogues, have been originated. Of the autumnal Roses there are a few called Perpetual Moss, raised by crossing the seed-bearing Moss Roses with Perpetuals, but this class makes but small progress, and there are not more than two or three desirable varieties at present which will be described with the Moss Roses. The Damask Perpetuals, raised, perhaps, between the Damask and China Rose; the Hybrid Perpetuals, which is the class of the day, for, of one superior variety

added to all the other classes together, of late years, there have been perhaps not less than half-a-dozen to this, and principally, for the future, the new varieties will be properly classed here. The origin of these, no doubt, is various, but considered principally to arise from crossing the Hybrid China with the Bourbon and China Rose; the Bourbon, from a semi-double variety, sent from L'isle de Bourbon, thirty years ago; the China Rosa indica, from China; the tea-scented, the same with the scent of green tea; the Noisette Rose, flowering in clusters, raised by an American nurseryman; the Musk Rose (*Rosa Muskata*); the Macartney Rose (*Rosa Bracteata*); and Small-leaved Rose (*Rosa Microphylla*) about concludes the list from which our garden varieties, in the catalogues, have been derived.


Now, botanically considered, this is all very well, to know from what species or cross any favourite variety has been originated, but, for a popular guide to the young Rose grower, it is worse than useless. A few years ago, we had nearly five hundred varieties, growing in our Rose garden, since then we have added upwards of two hundred, but have now reduced them to about one hundred and fifty varieties, which include all that is distinct and beautiful in the Rose, and we intend to describe them in the following classes:—First, Summer; second, Moss; third, Hybrid Perpetual; fourth, Bourbon; fifth, China and Tea-scented; sixth, Noisette, Climbing, and miscellaneous Roses.

[To be continued.]

T. ALLESTREE,

Draycott, near Derby.

To Cober or not to Cober.

 HAVE been a reader of the MIDLAND FLORIST from its commencement, and I think that I have often been benefitted by its perusal. It is extremely suitable, I think, to the amateur florist. I always like to see its face, and weary when any careless fellow lets it slumber too long beside him. I have no wish

whatever to debate or find fault with any of your numerous correspondents, at the same time some of their opinions are at variance with my experience, as regards the Tulip. I have no doubt that, in your neighbourhood, there are collections of Tulips more extensive, and containing many higher-priced sorts than any that we can boast of, but the Tulip has long been the triumphant flower in this district, and, in our own parish, we could muster from twelve to twenty collections, with from two to three hundred sorts each, besides many smaller lots, and we are quite familiar with the greater part of those that stand at the top of your prize lists. I have often been amused with some of your contributors, when setting it down as essential to have the bed covered from frost and rain, in winter. Now, sir, I have grown the root for nearly half a century, and, you see, amongst florists too, but I never knew a single instance of a Tulip bed getting any covering whatever before the latter end of March; at that time we think it right to put up the hoops, and throw a good net over them, as this protects them from slight frosts; but if it threatens to be severe, the canvas can be added, and then all is safe. Now and again we have indifferent beds, but, in nine cases out of ten, this can be traced to an injudicious attempt to make them too strong, never to the want of covering in the winter months. With regard to strains, whether you buy or exchange, you are always assured you are getting the best, but, best or worst, if we propagate up to four, five, or six roots, we generally have very different strains, and all from one original root. If any of your friends could tell how to keep the best always the best, they would much oblige us Fifeshire florists. For my own part, I have long been of opinion that soil was more to be looked to than strains. About forty years ago, I was in the habit of buying roots from an amateur, in Edinburgh, and, at the same time, from a dealer, in Linlithgowshire. What I had from Edinburgh always came first-rate, the first year, but it took all my philosophy to keep them up to the same style, in after years, and those that I had from my Linlithgow friend

always took one year, and sometimes two, before they appeared in their proper colours. I have often been delighted when I read the remarks made, and the descriptions given, by competent judges, respecting seedlings, and fondly hoped that the monotony of the prize lists would no more annoy, but again and again it is Bienfait, Heroine, Charles X., &c. What is the reason? Have not the new gems come into the hands of competitors, or are they only gems amongst their fellow seedlings, and not equal to the common sorts? How would it do to disqualify three or four of these fellows, from each class, who have stood so much in the way, for a year or two, and let us see who comes next?

W. M.

Dumfermline, Feb. 10.

The Pelargonium.

[Continued from page 62.]

AFTER MANAGEMENT.

WE are not going to elaborate on the art and mystery of applying sticks and ties, to spread out the plants to an indefinite size, and we have no great respect for the taste of employers who allow their plants to be distorted, to meet the vulgar notions of modern judges, and cater for the depraved appetites of the wonder-loving mob. We hold, that whatever is unnatural, is unworthy of the gardener. Let Geraniums take their natural growth; let them appear like what they are; grow them strong and healthy; check them, to make them bushy; thin out the shoots that would grow inwards, and choke the head; but a Geranium that will not support itself, is unworthy of a place in a good collection. It would be a just exposure of a gardener to make him, at a show, undo all his ties, pull out all his sticks and wires, and expose his miserable artificial growth, by allowing the wretched

dwindling branches, stems, and flowers to lollop about over the sides of the pot, just as it would to make some painted-up woman take off her false hair, pull out her false teeth, and remove everything false, even to her rouge. The vanity of the gardener and the courtesan would have a check that would be of service. What object is more beautiful than a well-grown Geranium in bloom? If a lady or gentleman insisted on growth, without sticks, their Geranium-house would far exceed in beauty all the Geranium shows of modern times. As your pots become full of roots, shift again and again; give plenty of air, in fine open weather; shut up, in damp foggy weather, and if there be two or three days consecutively, light a fire, and open the top sashes, to let out the damp. Watch for the greenfly, and by the effect of syringing the plants, under and over, with a wash made of bitter aloes, dissolved in water, half-an-ounce to a gallon may be strong enough, and, though we are not yet confirmed in the full extent of its efficacy, we receive, daily, favourable reports from persons who have tried it as a preventative, and who can only at present say that they have not been troubled. Perhaps it will be better, in case it already appears, to fumigate with tobacco, and syringe with plain water, to clean them; but the bitter aloes, when used, is not to be washed off, because the bitter is said to be a preventative of thrip, bug, aphides, and every other pest that annoys the gardener. One thing is quite certain, the solution can do no harm, and is not expensive. From this time, until the bloom, that is to say, from the time they grow into plants, until they flower, they only want the same treatment. Shifting, when the pots fill with roots; stopping, when the shoots get too long; watering only, when the surface is dry; keeping clear of aphides; air, in fine weather; and shutting out extreme wet, frost, and fog. We now speak only of plants to be grown worthy of the gardener's skill, and to set off the Geranium-house to advantage. We must not, however, stop any of the shoots after the middle of March, when they should be stopped generally. After warm days, they may be syringed once or twice a week, and shut up early in the

afternoon, and if the solution should be found efficacious let every third syringing be with that, for, as the clear water syringing will wash it off, it must now and then be renewed.

BLOOMING.

Preparation should be made for shading, and this ought to be a thin muslin lining to the house, to keep off the flees and bees, for they rapidly destroy the bloom. As they approach the bloom, and show their trusses, give every other watering, with liquid manure. One spadeful of dung, rotted to mould, in six to nine gallons of water, soaked a day or two, well stirred about and allowed to settle, this used, just as you use water while of use, will not only increase the size, but also improve the colours. The plants should be shaded from the sun, in the heat of the day; but early morning and late evening sun will not hurt them. Much of the continuousness of the bloom depends on your keeping away the bees and shading the house.

CUTTINGS.

When the bloom is over, the plants may bear all the sun, or they may be put out of the house, and a fortnight after they may be cut back into respectable skeletons, and, after the moulds have dried up, they may be watered, and will soon break. When they have begun to shoot, shake all the earth from them, trim the roots, repot them in smaller pots, trim the cuttings that are taken off, let the pieces have one joint below and two above, place them round the edges of four-inch pots, three or four or even five in a pot, and let them be in the shade till they have rooted, or put them in the open ground, with a glass over them, shaded from the heat of the sun, and they will soon root; and when rooted, they will be subject to the treatment we started with.


SEED AND SEEDLINGS.

Seed should be sown thinly, in pots or pans, and placed in the greenhouse or the stove. As soon as they are large enough to handle, prick them out round the edges of four-inch pots, about five in a pot, and keep them growing until strong enough to pot singly in

three-inch pots, when they must fall into the general management, and be shifted when the pots are full of roots. But, as we have frequently had to observe, seedlings should never be stopped, for it is as necessary to see the natural habit of the plant, as it is to see the flowers as soon as we can. Now, stopping would change the one and delay the other. As seedlings come into flower, destroy them, if inferior to those we already possess—that is to say, give them or throw them away.

[To be continued.]

Floriculture versus Fraud.

 IF I understand rightly, floral societies are established for the purpose of improving, BY CULTIVATION, everything appertaining to the floricultural science, and, in order to effect this, public exhibitions are held, that its members may show their several productions, in order to stimulate each other to greater excellence; and, at the same time, give publicity to that which is worth cultivating.

Now, can anything be more likely to injure the object of these societies than the practice of “dressing” flowers, resorted to by so many exhibitors at the present day? How are the public to know what is the best to cultivate? Because a “dressed” flower may have been a very indifferent variety ere the skilful hands of the dresser MADE IT UP, and so palmed it off as the true character of the flower. Can such practises be anything better than a fraud? Is not the amateur continually cheated of his money by the “dodge.”

I cannot believe that any floricultural society would purposely spend its funds for these made-up specimens. I will illustrate one of the bad effects:—A Pansy grower attends an exhibition of that flower, he wishes to increase his collection, therefore he takes notes of those that appear nearly up to the standard required,—

round, flat, and smooth,—he orders the same variety of his nurseryman and grows it, but, alas! it is neither round, flat, or smooth with him. He visits his floral friends and finds that it is equally bad with them. No! the flower required to be regulated, so as to appear round, flattened, and weighted, or its petals were curly, &c.; here the purchaser was cheated out of his money, and the trouble he gave to its cultivation.

Again, the Chrysanthemum; what flower is more dressed for exhibition than this? Many of the best sorts “for dressing” are condemned, as being unworthy of cultivation, in Mr. Broome’s excellent “Treatise on the Chrysanthemum.” I have no more faith in selecting flowers from the character I see them, at exhibitions, than I should have in the catalogue that advertised blue Dahlias or green Picotees.

Let us all endeavour to exhibit fairly everything in its true character, for by that means, we shall increase floriculture, and put down fraud.

ALBERT DEARN.

St. Botolphs, Colchester.

Chrysanthemums.

A WORD OR TWO TO THOSE BUYING PLANTS.

WE are well aware that, in consequence of many Chrysanthemum Societies starting, there are many persons who are, during this month, buying plants of different nurserymen, and therefore are at a loss to know how to treat them successfully. We have received several times, during the past few days, requests to answer these queries, and have dropped a line to our friend, Mr. Broome. We give his answer as received:—In answer to numerous inquiries respecting the management of young Chrysanthemum plants, purchased from nurserymen, or obtained otherwise, early in spring, to insure good plants, for turning out in April, to grow for exhibition, they

had better be kept in cold frames, in sixty or forty-eight pots, in sandy loam, with very little water at present, or they will damp off; as most of them are grown, that come from nurseries, in moderate heat, and are very scanty of roots, they will not stand much watering. Those that have no frames may shelter them, in wet and cold weather, under a temporary canvas, or a roof of boards, so as it keeps off wet, till they are well rooted; but be very careful not to lose the crown shoot, if for cut blooms; on the contrary, if for specimen plants, stop as soon as possible, to get the side shoots. On fine days, let them have all the air possible, to keep them from drawing. As they progress in rooting, give more water, but keep them from being injured by spring frosts; they will bear a little without being injured.

S. BROOME.

Analysis of Gooseberries.

FROM THE "GOOSEBERRY GROWERS' REGISTER," BY MR. R. MOORLEY,
NEWCASTLE-UNDER-LYME, STAFFORDSHIRE.

THE following analysis exhibits, at one view, twelve of the heaviest Gooseberries in each class weighed in at the different Gooseberry meetings throughout England, by whom raised or let out, the number of prizes each variety has won, the number of times each has been 20dwts. and upwards, the heaviest weight attained, by whom grown, and in what county grown in. The year 1858, as may be seen by a reference to the analysis for several years previous, has not been a very good one generally, although there has been heavy fruit weighed in. The old favourite, London, is registered several times 30dwts. and upwards, and Conquering Hero, grown by Mr. Samuel Bailey, Derby, (burst) weighed 32dwts. 14grs. No other sorts are registered 30dwts., although it will be seen that several reached upwards of 28 and 29dwts.

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Raiser's Name.	Names and Colour.	No. of Prizes won.	Times 20 dwts. and upwards.	Heaviest Weight.	Whom grown by.	County grown in.
RED.						
Banks	London	433	373	34 14	R. Weaver	Staffrds.
Spencer	Dan's Mistake	235	196	26 13	G. Addis	Staffrds.
Fish	Conquering Hero	190	126	28 3	J. Carr	Yrkshre.
Walker	Clayton	149	106	26 20	T. Nicholas	Cheshire
Saunders	Wonderful	124	81	28 12	T. Blower	Cheshire
Hopley	Companion	98	36	26 8	J. Babb	Staffrds.
Mather	Speedwell	58	37	26 9	J. Taws	Staffrds.
Fish	Lion's Provider	54	27	25 8	G. Stelfox	Lncashr.
Poulson	King Cole	38	26	26 0	P. Bancroft	Cheshire
Baker	Useful	27	16	26 6	J. Barker	Staffrds.
Poulson	Alderman	23	18	27 6	T. Craven	Lncashr.
Webster	Lord Liverpool	7	7	26 16	J. Hall	Cheshire
YELLOW.						
Cranshaw	Drill	264	158	27 9	J. Lockett	Staffrds.
Travis	Catherina	263	166	27 4	W. Hindle	Lncashr.
Cook	Pern	177	92	25 20	W. Cooper	Lncashr.
Piggott	Leader	147	45	23 20	J. Johnson	Cheshire
Greenhalgh	Leveller	130	79	26 4	J. Brassington	Staffrds.
Rhodes	Oldham	111	67	27 17	W. Slinger	Lncashr.
Ellis	Lord Ranccliffe	68	31	23 1	Kirkham	Notts.
Leicester	Hue and Cry	35	13	23 15	T. Nicholas	Cheshire
Bell	Goldfinder	33	13	23 13	Mills	Notts.
Hague	Lord Scarborough	24	16	23 16	W. Hatfield	Drbysh.
Leicester	Go-by	11	5	23 12	G. Beckett	Cheshire
Badrock	Cramp	8	5	24 4	T. Lenceley	Cheshire
GREEN.						
Riley	Thumper	276	92	25 6	W. Slinger	Lncashr.
Poulson	Telegraph	169	68	24 16	G. Addis	Staffrds.
Thewless	General	125	24	23 21	T. Lenceley	Cheshire
Swift	Queen Victoria	101	20	23 8	W. Slinger	Lncashr.
Brough	Greenock	84	31	24 12	W. Amison	Staffrds.
Foster	Overall	75	19	23 10	Johnson	Cheshire
Duke	Stockwell	64	28	24 0	H. Berley	Yorksh.
Dutton	Rough Green	58	11	23 22	Chaddock	Cheshire
Fairclough	Thunder	47	10	23 0	G. Wilkinson	Yorksh.
Levatt	Peacock	34	4	23 3	Dr. Crossley	Lncashr.
Saunders	Green Wonderful	23	4	24 3	J. Coppock	Cheshire
Baker	Sir G. Brown	12	8	23 10	W. Maddox	Staffrds.
WHITE.						
Oldfield	Antagonist	276	179	29 8	J. Coppock	Cheshire
Moore	Freedom	182	37	22 22	J. Matthew	Lncashr.
Lee	King of Trumps	142	69	25 12	G. Beckett	Cheshire
Bratherton	Snowdrop	102	25	23 0	J. Barnshaw	Cheshire
Chapman	Flora	92	18	23 4	D. Bloor	Staffrds.
Hardman	Snowdrift	74	25	25 21	J. Hall	Cheshire
Crompton	Careless	69	11	23 12	C. Leicester	Cheshire
Bratherton	London City	64	18	24 11	J. Walton	Cheshire
Etchell	Snowball	33	4	23 8	Marsden	Notts.
Bayley	Queen of the West	29	5	23 11	J. Flowers	Staffrds.
Rawson	Alma	24	4	22 16	J. Dennis	Staffrds.
Harpham	Free Trade	7	3	23 12	T. Bell	Cheshire

In the analysis of 1856, the sorts named for any amateur or young Gooseberry grower to add to his collection, having generally proved to be good sterling show varieties, I venture to say that the following new or recently-introduced varieties may be also added with safety, by any person not possessing them.

RED CLASS.—Talford, Masterpiece, Lord Liverpool.

YELLOW CLASS.—Cramp, Hecla, and Mount Pleasant.

GREEN CLASS.—Sir G. Brown, Jerry, Fearless, Tittenson, General Williams, and Surprise.

WHITE CLASS.—Alma, Free Trade, and Elizabeth.

HEAVIEST BERRY IN EACH CLASS.

	RED.	dwt. gr.
Banks's London, grown by Mr. R. Weaver, Betley, Staffordshire	34	14
	YELLOW.	
Rhodes's Oldham, grown by Mr. W. Slinger, Hold Mill, Lancashire	27	17
	GREEN.	
Riley's Thumper, grown by Mr. W. Slinger, Hold Mill, Lancashire	25	6
	WHITE.	
Oldfield's Antagonist, grown by Mr. J. Coppock, Tarvin, Cheshire	29	8

Select Vegetables.



HEREWITH send you a list of seeds, chosen from the numerous catalogues, and which, I firmly believe, will considerably assist amateurs in selecting such as will give them satisfaction.

PEAS.

Rendle's First Early, 4 feet	Old Green Marrow, 4 to 5 feet
Warner's Early Emperor, 4 feet	Fairbeard's Cham. of England, 5 ft.
Ringwood Marrow, 4 feet	Thurston's Reliance, 6 to 8 feet
Auvergne, very productive, 4 feet	Victoria Branching, 6 to 8 feet
Hair's Defiance Marrow	The Old Grotto, excellent, 6 to 8 ft.

BEANS.

Early Mazagan	Canterbury Dwarf Kidney
Royal Cluster, a dwarf sort, 2 feet	Fulmer's Early Forcing
Rendle's Early Conqueror, fine sort	Negro Long Podded
Green Long Pod	Scarlet Runners
Green Windsor } white sorts.	Painted Lady, flowers red & white

CARROTS.—Scarlet Horn, early, and Altrincham.

SPINACH.—Prickly and Flanders.

BEET.—White, the leaves a good substitute for Spinach, Barrat's Crimson, Catell's Blood Red.

WINTER CABBAGES.—Brussels Sprouts, productive, Scotch Kale, excellent, succeeds the above, Green Dwarf Savoy, Drumhead Savoy.

CABBAGES.—Atkin's Matchless Dwarf, Shilling's Queen, Enfield Market, favourite in London, Estham's Superior, for general crops, and Red Dutch, for pickling.

CAULIFLOWERS.—Early London, Asiatic, very large, and Walcheren.

CELERY.—Coles's Superb, white, Coles's Defiance, red, Incomparable.

CAULIFLOWER BROCOLI.—Elletson's Emperor, Late Dwarf Russian, Knight's Protecting, Rendle's Superb, Wilcove, Snow's Winter White, and Invisible.

LETTUCE.—Adis's Coss, very fine summer sort, Snow's Coss Compact, Bath Coss, very hardy summer or winter sort, Berkshire Coss, excellent and hardy, Drumhead Cabbage, very good, Hammersmith Hardy Cabbage, Tennis Ball, and Hardy Green.

ONIONS.—Deptford, Strasburgh, White Spanish, Silver-skinned, for pickling, Potato, or Under-ground (by sets), Tripoli, for winter, White Lisbon, for winter, and Welsh, to draw young. The three last mentioned to be sown in August.

PARSNIP.—Hollow Crowned.

RADISHES.—Scarlet, for early crops, Salmon, Red and White Turnip.

LEEK.—London Flag.

ENDIVE.—Batavian, small, and Green Curled. For winter salads.

CRESS.—Fine Curled, and American, for winter. Sow July.

CUCUMBERS (Frame).—Sion House, Cuthill's Black Spine, Walker's Long Green, Lynch's Star of the West, Stockwood's Fine Ridge, and Ayres's Perpetual, frame or ridge.


TOMATO.—Red Fruited, raised in heat.

TURNIPS.—American Red Top, Orange Jelly, Early Dutch, first sowing, and Early Stone.

MELLONS.—Cuthill's Early, Beechwood, Netted Sucade, and Duncan's Green Flesh.

J. H.

My Flower Garden.

 If this season does not beat some of the best florists, I shall be mistaken. It is difficult to make things keep their places, and many a subject is, like some men, going too fast. My Crocuses, grown in six-inch pots, and plunged, are just peeping through. The object of plunging is to enable a man to remove them directly they are out of bloom, and to drop other pots into the same hole, and thus replace the most untidy looking lanky grass foliage with other plants. Early Tulips and Hyacinths are also plunged in pots, for the sake of changing them, when they are past bloom, for other subjects, grown in the same sized pots, on purpose. This pot

culture suits well for flower gardens, in conspicuous situations, where you have room to grow plants in pots, for succession, otherwise there would be all the holes to fill up; as it is, I have everything I want in smaller pots, and shall have nothing to do but make the changes as things get untidy. When these things are taken up, I plunge them, without their pots, in the open ground; the bulbs swell as well as if they had been originally planted there, and the pots are at liberty for something else. By this system, a complete succession of flowers may be kept up nearly all the year,—Crocuses, Hepaticas, Jonquils, Daffodils, Squils, Iris pumila, Primroses, Polyanthus, &c., February and March; early Tulips, Hyacinths, and Narcissus, in April; late Tulips, and all sorts of bedding-out plants, in May; and everything that is gay and brilliant helps to keep up the succession all the summer; towards autumn, the Hollyhock, Dahlia, Asters, and late Stocks keep the borders bright, till the Chrysanthemums wind up the floral year. I am busy with Dahlias, like the rest of the gardening world, and many of them are very loth to break. In striking these, it may be worth notice, that if half-an-inch thickness of sand be put on the top of ordinary light mould, so that the cuttings can be put down to the bottom of the sand, and only just touch it, they will strike with much greater freedom than they will without the sand. I am just potting a lot of Hollyhock seedlings, selected from a hundred that bloomed for the first time last year, and exhibited signs of good quality. I shall merely chop them to pieces, and plant them, to prove what they are, before letting all the world see them. I think they are good, but the tried and proved varieties, I am propagating as much as I can. They are potted up, and as soon as a side shoot gets strong enough, it is cut off, close to the root, and put in pots, in a cold frame, there to mature itself. As all the smooth-barked Roses will strike root early, I recommend everybody who prunes the Rose, to prepare the cuttings, and plant them, like so many Gooseberry and Currant slips, into a shady border, with a hand-glass over them. I have done this with Tea, Noisette, and China Roses, and scarcely missed striking one in a dozen. Now this is a very simple operation, because two eyes below and one above the surface are enough; the wood removed from a Rose will furnish plenty of them. I am pruning many of my Roses now, because they have begun growing strong, from the eyes towards the points, and I have cut them below the growing eyes, to prevent the tree from exhausting itself too much; the timely check will be of service. My border is four feet wide, eighty yards long, and a stake is driven, one foot from the back, a yard apart, the whole length. At one, I have a Standard Rose planted; the next is for a Hollyhock; the third for a Dahlia; and it is impossible to improve upon the appearance, when they are all in flower; they are as near as they ought to be, not to crowd, but they fill up the back well, and look very formidable. The Holly-

hocks I stop at six feet high, by taking off the tops; this makes all the flowers bolder and better. Then, as there are several buds at the base of every leaf, I take all off but one, in each place, and as they advance, I see which is the best to remove, for when a flower is allowed at every leaf, they crowd each other very much. I have had to remove one-half of the principal buds, and then they have touched, when fully blown. The beauty of a row of Hollyhocks is greatly enhanced by keeping all to one height, and if they do not continue in flower so long, they are at least twice the size. I see nothing to admire in the miserable top blooms, even if they are left to bloom themselves to death, ten feet from the ground. Among the perennials, which cannot be considered second to any, none has gratified me more than the *Delphinium formosum*. Its blue is without an equal, unless it be in *D. Hendersonii*, and this leads me to remark, that having had the best part of a dozen, under different names, I saw nothing but *Formosa* in several. Very particular people, who could spare time to look with a glass, might discover a difference. I saved all my seed from one plant of *Formosum*, and had nearly four hundred blooming, last year. I can safely say that all my bed was *Formosa*, to the ordinary observer, and if *Hendersonii* had been stuck among them, nobody could have selected it for its superiority, as a border perennial. I can just imagine how a *Formosum* would look, and eclipse all ordinary flowers that were near it. This comes true. This blue, with the golden orange and brown of the *Coreopsis*, which is about the same height, the scarlet of the *Geranium*, the white of *Phlox omniflora alba*, and the golden yellow of *Calceolaria aurea floribunda*, must be seen to be appreciated. Another of my favourite border perennials is the *Aconitum variegatum*; a long time in flower, and very graceful. As for annuals, I do not patronise many; a few of the most popular will never be passed by, while hundreds of novelties have been praised, tried, condemned, and thrown away. The *Convolvulus minor*, *Nemophila insignis*, *Coreopsis*, or *Caliopsis*, if you like the name better, *Erysimum*, *Mignonette*, Sweet Pea, Candytuft, Larkspur, Ten-week Stock, Aster, New Everlasting Flower, for winter nosegays, Balsams, Linneæ, Imperial India Pink, French Marigold, and *Thumbergia*, are all I should care about, of all the hundreds that are catalogued. As for Lupins, the perennials have beaten them. Nothing among annuals comes near *L. Polyphyllus*. Certainly the annuals, in some cases, beat the perennials. We have nothing to come up to the Stock and Aster. The Germans and French have brought them to a quality that cannot be surpassed. I have saved seed from them as good as themselves, but the merit was in producing them in the improved state. I knew it to be quite possible to save seed here as well as in Germany; but who will take the pains? I have, with Stocks and Asters, and fully succeeded. In fact, I at length got the Stock so double, that

I lost the breed altogether, by not having a single Stock to save seed from. My Ranunculuses are just planted. The 14th of February is a favourite day, but I have been calculating that I would rather have them later than usual, because I fear March and April frosts, and they will bear it better under ground than above. I think we may safely plant for a week or two longer, without their being the worse for it. Let me advise all, whose Tulips are through the ground, as mine are, to loosen the soil all about them, and, if possible, keep them dry for the next six weeks, if they can do it easily. They certainly do not require moisture, and frost takes much more effect when they are wet than when they are dry. Hyacinths, in the open ground, are poking up their blooms, and, although they stand a good deal of frost, they are something the worse for a long one. I am rather glad that I planted about two thousand Tulips a month after the usual time, for they will not be pinched half so much as the best, which are up, and the bed loosened, unless I cover directly. I have made a very plain and simple rosary; nothing more than a row of four-foot Standards, a yard apart, and four feet back from the edge of a border; a row of two-foot-six stands eighteen inches forwarder, and half-way between those at the back; a row of Dwarf-worked ones a foot forwarder; and the front row Dwarfs on their own bottoms, of the small sorts. The effect of this will be a bank of Roses, for they are all perpetual bloomers. I have not been afraid of having too many of a sort. I think there may be a dozen each of *Devoniensis*, *Souvenir de la Malmaison*, *Queen of Bourbons*, *Geant des Batailles*, *Celemene*, and *Madame Laffay*. I am sure there is no charm in a great number of names. However, for those who have to plant, all I say is, make haste.

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Notes and Queries.

AN "Amateur and Subscriber" cannot legally remove the Quick fence, or trees, or shrubs of any kind, unless the land was taken for, and used as, a nursery, then all trees could be removed, but not the fence. All plants, in pots, bulbous roots, and plants of any kind that are removable every season, can be legally taken away from any amateur's garden, but no fruit trees, or shrubs, without the landlord's permission. Such is the law of gardens, and calls loudly for reform.—J. W., W.

W. D. S. will see an article on Potatoes (page 84) that would, we think, be suitable to his situation.

We have prepared an article in answer to "Jacqueminot," but not having space for its insertion, this month, it is our intention to give it in our next number.

Reviews.

CULTURAL DIRECTIONS FOR THE ROSE. BY JOHN CRANSTON.—This is a most useful little hand-book, by one of those men who does not lay down theory for the sake of writing, but for the instruction of the amateur. It is a book that may be read by every grower of the Rose, either professional or amateur, and not only read, but may be found unusually advantageous. To all who are commencing Rose growing, or who have commenced, we cannot do otherwise than recommend it, and we are sure we shall have their hearty thanks. It is at once cheap, readable, and profitable, therefore, we would only add—buy it.

JAMES CARTER'S VADE MECUM is one of those things which every gardener should possess. It is really admirable. We should say cheap at sixpence. Everybody knows Carter's Catalogue, but this year there are twenty-two pages of calendar of operations added, and yet the price is gratis. Surely we need not ask our readers to send for one. As a specimen, we have extracted the greenhouse and kitchen garden (see pages 106 and 107), and judge for yourselves of the quality.

Calendar of Operations.

AZALEAS.—The early flowering plants, now returned from the show-house, should be placed in heat, in order to be encouraged to make a vigorous and kindly growth, and set their flower heads in due season, for another year's early flowering. Repot all young plants that require it, and place them in some convenient house or pit, where a nice humid atmosphere can be maintained. Syringe freely on fine days. Introduce another lot into the forcing-house. To those in flower and those coming into flower give a little clear weak liquid manure once a week.—E. CLEETON, *Dumbleton, near Evesham, Gloucestershire.*

CHRYSANTHEMUMS (Large Flowering Varieties, Grown on Single Stems, as Specimen Plants, for Exhibition.)—If the plants were sufficiently strong enough to be stopped in the way recommended by me, in the February number, and they have freely emitted shoots, from all the eyes left, at the period of stopping, they must then be shifted sometime during the early part of this month. But repotting must not be resorted to, if the plants have not regularly-developed shoots at every eye. Sometimes the lower eyes will not break so soon as the upper

ones. To induce a uniform emission of shoots, have recourse to the simple plan of gently bending the heads of the stem downwards, and fixing it in that position by means of a peg; returning it to its original form as soon as the object is attained. As the plants will require protection, under glass, till the middle of May, and as the solar ray will, at this season, every week, have increased influence in promoting vegetation, remove the lights, on all favourable occasions, or else a weakly growth will be the result, and no after management will compensate for this neglect. In potting now, use a small quantity of old mellow cow-dung. As worms generate abundantly in the above manure, they should be carefully searched for, before incorporating it with the soil. If mildew should appear among the plants, slightly dust them with powdered sulphur. Green-fly should be watched for, as they greedily feed on the new or sappy portion of the wood, and thus sadly cripple the progress of the plants, if not quickly destroyed, by fumigation with tobacco.—R. OUBRIDGE, *Stamford-hill, Stoke Newington.*

CINERARIAS.—These, both seedlings and named sorts, will now be very gay. In selecting seedlings to grow another season, choose only such as are improvements on existing varieties. There is considerable improvement to be made in this class of flowers, and amateurs should turn their attention to it. There is every chance of success. Specimen plants will be growing fast, and must have all the room it is possible to give them. As they grow, the flower stems must be tied out and regulated. This is necessary, in order to have a handsome head of bloom. A little manure water, such as is given to Pelargoniums, will be beneficial. Give plenty of air, at favourable opportunities, keeping the plants close to the glass. All plants should be in the pots they are to bloom in. Fumigate often, with tobacco paper. Those who intend to sow seed, should select their plants, and put them together, by the end of the month. In selecting, choose only those having good broad petals, without serrature, decided colours, compact growth, and large head.—JOHN DOBSON, *Woodlands Nursery, Isleworth.*

EPACRISES.—Where a good collection and selection are kept, they will make a show-house very gay at this season of the year. As they go out of flower, cut them back, and treat them as directed in the last calendar; and when they have made three or four inches of new wood, repotting should be proceeded with; and the cultivator should bear in mind that the Epacris has very small, hair-like fibres, like Heather, and should have good sandy peat alone, mixed with lumps of charcoal, or white sandstone. The soil must be sweet, from being well aerated, lumpy, and fibery, in opposition to close and fine; but the lumps and fibery parts must be used in proportion to the size of the pots. My plan is, when I repot an Epacris, and find the ball of earth to be full of nice healthy roots, and it has been growing in a three-inch pot, I place it in a five-inch

one. I break the soil up into portions from the size of a small pea to that of a marble, and mix a little charcoal with it. I then take a clean pot, and place a bit of a broken one over the hole in the bottom, with its round or convex side upwards, placing other smaller pieces around and over it, and then several layers of similar but still smaller pieces, all mixed with lumps of charcoal; then a layer of moss, to prevent the soil from washing down among the drainage; place some lumpy parts of the soil upon the moss, then some smaller, and placing the plant upon it, fill up round the old ball with finer soil, pressing it down with the fingers (but not so hard as I should were I ramming a gate-post), and finish by making it fine on the top.—E. CLETON, *Dumbleton, near Evesham, Gloucestershire.*

FUCHSIAS.—These will be growing very fast. Repot those that require it. Plants for the early exhibitions, should be in thirty-two-sized pots. Maintain a moist atmosphere. Syringe once or twice a day. Water with liquid manure. Early blooms should be pinched off. Never let the plants get dry. See that no shoots are broken for want of a stick. Continue to put in cuttings as required.—JOHN DOBSON, *Woodlands Nursery, Isleworth.*

GREENHOUSE.—All the young specimen hard-wooded plants shifted last month should now be making active growth, both at root and branch, and must be encouraged by a more liberal supply of water and gentle syringing. Stop strong shoots, and train the plants into the desired shape at once; no after care will do it, if neglected now. Large blooming plants must not be stopped, but encouraged with plenty of water, frequent changes of position, and an abundance of air; but still beware of cutting winds. Epacris which have now done flowering should be well cut back, and placed in some rather close structure until they have started, when they may have a shift, if necessary, and the growth gradually hardened. Soft-wooded greenhouse plants must now be encouraged to make all the growth possible. Cinerarias will be advancing fast into bloom; do not let them want for water, and be sure to keep down aphides. Shift the stock for later blooming. Continue the shifting of Calceolarias as they advance; the surplus seedlings may be hardened off for planting on a shady border out of doors. Keep Cyclamen at the warmest end of the house. Let Tropæola have a free circulation of air about them. Do not allow the plants of Double Chinese Primrose to perfect too many trusses of flowers, as it weakens them very much, in fact sometimes kills. Remember also that drip and a damp stagnant atmosphere inevitably kills them. Sow seed of *Primula sinensis fimbriata*, to bloom in autumn, also of greenhouse seeds generally. Shift any plants of Pelargonium which may have been left for late blooming. Train out the forward specimens; let them have a dose of liquid manure occasionally, and a free circulation of air, but be careful of fire heat, which is apt to draw the blooms up too fast.—James Carter's Gardener's *Vade Mecum*,

HEATHERY.—Examine all specimen plants carefully, to see that their roots are in a proper state with regard to moisture and the drainage clear. If you have any suspicion that the interior of the ball of earth is in any degree dry, place the pot in a feeder of water until it is well soaked. Many plants may appear all right, and at the same time be very dry, and if they are not looked to in time, the March winds will point them out. Repot all plants that require it, and give all the air possible, avoiding north or north-east winds. The recently repotted Heaths should be kept rather close, until the roots take hold of the fresh soil.—E. CLEETON, *gardener to E. Holland, Esq., Dumbleton, near Evesham, Gloucestershire.*

KITCHEN GARDEN.—This is a busy month indeed, and every exertion will be necessary. Two sowings of Peas must again be made this month,—the first to consist of the middle and late varieties, and the last of the late wrinkled sorts: Carter's Victoria, Ne plus ultra, and King of the Marrows are Peas of unrivalled excellence. The rows are best single; but, if not, they must be six feet apart. Sow Johnson's Wonderful and Taylor's Windsor Beans. Get in the main sowing of Parsley; also a good bed of Early Horn and James's Scarlet Carrot. The main crop of Onions should be got in about the middle of the month. Consolidate the ground with a wooden roller, and sow in drills seven inches apart, for the convenience of thinning. Sow Celery for the main crop early this month, and prick out on a gentle heat those sown last month. Sow Brussels Sprouts, Chou de Milan, Savoy Cabbage, and Borecole for the main crops. Make a small sowing of Snow's Winter and Grange's Brocoli, for use in early winter. Prick out the Cauliflowers sown last month, and make another small sowing on a warm border. The first week in the month sow Early Dutch Turnips in a frame, on a gentle hot bed, and at the end of the month a good sowing in drills on a border; use plenty of seed, and scatter soot and ashes over the bed. Sow Spinach twice this month, and keep up successional sowings of Radishes and small Saladings. Prick out early-sown Lettuce, and sow more seed. Plant beds of Globe Artichokes, in soil well trenched and manured, also of Jerusalem Artichokes; they like freshly broken-up ground. Plant beds of Asparagus and Sea Kale, and sow seeds for a supply of young plants; also plant Horseradish, in deeply-trenched soil, with manure at the bottom. Make fresh beds of Thyme, Mint, Tarragon, Sage, and other herbs; seeds of all kinds of herbs should be sown immediately. Sow Bush and Sweet Basil, on a gentle heat. Begin, early in the month, the planting of early Potatoes, particularly the sprouted ones, and let all the main crops be got in by the end of the month. Stir up the surface amongst all advancing crops. Plant out Cauliflowers and Cabbages from the autumn beds; also beds of Tripoli Onion from the August sowing. Sow also a bed, very thickly, of Silver-skinned and Early

Nocera Onion, for picklers; the latter is the best ever introduced for this purpose. Trench up vacant ground. Earth up and stake Peas, as they advance. Fork over the Asparagus beds very lightly. A few Radishes may be sown on the surface.—*James Carter's Gardener's Vade Mecum.*

PANSIES.—The weather can be no excuse, if the operations advised last month have not been carried out. We may fairly expect that most of the plants are in their blooming pots, and just recovered from their shift. They will begin to make rapid growth, and must receive abundance of air, to cause that growth to be strong, which will ensure fine blooms. Side shoots must be removed, and may be put into pots, to strike. Occasionally water with weak liquid manure. Remove all flower buds as they appear. Top-dress those in beds with about an inch of light soil. See that all shoots are securely pegged down. Plant out seedlings.—**JOHN DOBSON, Woodlands Nursery, Isleworth.**

PELARGONIUMS.—Those who are desirous of having the Geranium house gay till the end of July, cannot do better than stop the plants back, the first or second week in the month, keeping the house close for a few days, to induce the eyes to break strong. As soon as the eyes are started, shift them into their blooming pots, if not already done. When they have recovered, air must be given every favourable opportunity, opening early, and closing according to circumstances. The May plants are fast throwing up their trusses, and must be rather liberally supplied with water, giving liquid manure twice a week. About twice a week, on sunny afternoons, after shutting up the house, about four o'clock, I draw the syringe over the plants. June plants will be growing rapidly, and may be treated like the May plants, going over them often, to arrange the shoots, with the view of encouraging a short strong habit of growth. Avoid cold easterly winds, which are very prevalent in March. Remove all yellow leaves, which increase as the plants throw up their flowers. Give the plants all the room that can be spared.—**JOHN DOBSON, Woodlands Nursery, Isleworth.**

TULIPS.—From what we have observed, Tulips are appearing remarkably strong and healthy. Presuming the bed is arched over, protect from excessive wet and severe frosts, but at all times let the bed be quite exposed, when the weather is favourable.—**T. ALLESTREE, Draycott, near Derby.**

VERBENAS.—The cuttings of last month will have taken good root, and may therefore be removed to an airy situation, to harden, before potting singly. As soon as they appear to have stiffened, pot them off, giving plenty of drainage, and if placed in a little heat, to give them a start, so much the better. As soon as the plants have made three joints, pinch out the head. Continue to take off cuttings, which may be struck in a brisk heat.



APRIL

Culture of the Lily.

THERE are no prettier flowers than the whole tribe of Lilies, and those from Japan are splendid, white, pink, and beautifully spotted, graceful in the habit, and noble in the bloom. They surpass almost everything in the late summer months, and are easily cultivated. When Mr. Groom was alive, we have seen thousands growing, in the open ground, in half the ordinary garden soil, and half peat earth, and we know many of them had been in their places all the winter, with only the protection of a little litter, in severe weather. For pot culture, large bulbs should be chosen, and if a great show is required, as many as three may be put in a ten-inch pot, but if a single graceful plant, with one bloom stem is wanted, pot it in the centre of a six-inch pot, and let there be good drainage. When the plant begins to grow well, turn out the ball of earth to see if the roots reach the side. If so, shift to a pot a size larger, and take some pains to fill the pot well between the old ball and the side, but without disturbing the fibres. When it has grown considerably, and shows the buds, let it be removed to a ten-inch pot, in which it may complete its bloom. They cannot have too much air. They do well altogether out-of-doors, until the buds begin to swell; they should then be protected from high winds and heavy falls. We have seen them do well with only a glass roof, made with ordinary lights, taken from the ground, and when the flower began to open, shaded from the mid-day sun. The best soil for out-door culture is half loam and half turfy peat, and this eighteen inches deep, but for pot culture use loam, from rotted turfs two parts, peat earth one

part, well mixed together, and when the flowers begin to open, give liquid manure, once in four waterings. This liquid manure is to be made with a spadeful of sheep or cow dung, in six gallons of water, and stirred about two or three days; then use the clear liquid; this will give strength and size to the flowers. When three bulbs are used in a ten-inch pot, the liquid manure must be begun earlier, because, after a couple of months' growing, the plants will want some stimulant, for the soil will have lost a good deal. We cannot very well shift until the bloom buds have begun to swell, when they may be put into twelve-inch pots. When the flowers are opening, they ought not to have rain, but they will require constant watching to see that they do not lack moisture. *Lilium longiflora* has a trumpet-shaped flower, from nine inches to a foot long, but it is an ugly thing, compared with the whole family of *Japonicum*, *Eximium*, *Lancifolium*, *Album*, *Rubrum*, and their numerous progeny, for there are now hundreds of seedlings of which many almost beat the parent. They appear to have been crossed in every possible way, and among the improvements we may certainly reckon those which give quite as many flowers at half the height. Some have bright ruby spots, which are like so many precious stones set on the surface; others have various shades of purple, and even nearly black. They multiply most if left in the ground, but where the plants are to be grown handsome, in pots, all offsets should be removed on their first appearance, even if we have to rake down after them. The earth should not be disturbed until every vestige of life has departed from the plant above ground.

A Perfect Pelargonium.

FIRST. The petals should be thick, broad, blunt, and smooth at the edges, and slightly cupped.
 Second. The flower should be circular, higher at the edges than the centre (so as to form rather a hollow, though by no means a deeply cupped bloom), without

puckering or frilling ; and where the petals lap on each other, the indentation caused by the join should be hardly perceptible.

Third. The petals should lie close on each other, so as to appear a whole flower rather than a five petalled flower.

Fourth. The stem should be straight, strong, elastic, carrying the blooms well above the foliage. The footstalks of the individual flowers should be stiff, and of sufficient length to allow the flowers to show themselves in an even head, fitting compactly edge to edge, and forming a uniform bold truss.

Fifth. The colour should be bright and dense, whether it be scarlet, crimson, rose colour, purple, lilac, or any of the modifications, the spots on the upper petals should be boldly contrasted with the ground, and the darker the better : both upper petals should be alike, both side petals alike, and the lower petal uniform.

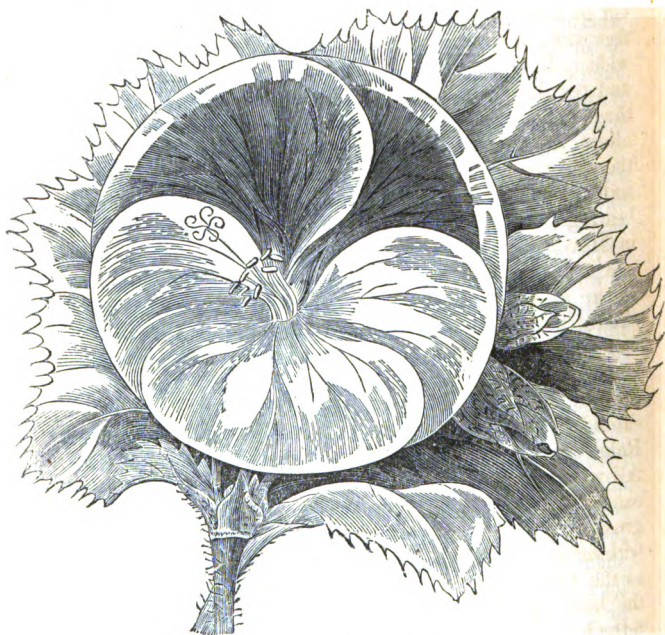
Sixth. All white grounds should be very pure ; and the colours, no matter what they be, on the white, should be decided, well defined, and by no means flush into the white.

Seventh. The spots on the upper petals, or the marks in any other, should not break through to the edge.

Eighth. Colours being a matter of taste do not affect the real properties so much as other points, unless it be on the score of novelty ; on this ground a bright scarlet would be desirable, and a black spot. We have plenty of approaches to both, but none very near.

Ninth. The plant should be shrubby in its habit, the foliage close, and of a rich bright green, the joints short and strong, able to support themselves in every part without assistance. The flower should be large, not less than five in a truss, and come at the end of every shoot. The obvious faults of most *Geraniums* are, long and pointed lower petals, uneven, twisted, matched, or puckered edges, long footstalks, which make the trees loose and open, weak shoots, and stalks, that will not hold up the flowers without propping, which destroys the appearance of the plant altogether ; small leaves and long joints, which make the plant open, the

habit gawkey, and the foliage poor. The societies which intend to encourage the *Geranium* should give prizes for plants only one year old, from cuttings; require only one truss of bloom, but allow as many as anybody likes to grow; consider none to be trusses which have less than five blooms, require all to be shown in thirty-two-sized pots, and have the nurserymen's class twelve, amateur's six; allow a class open to everybody for single plants and seedlings, in which one truss shall be allowed to the plant, and the seedlings should compete with the named flowers, and, as is the case with the *Auricula*, allow no support of any kind whatever.



A PERFECT PELARGONIUM

[From the *Florists' Guide*.]

Onions.

THIS is a vegetable that cannot be grown to perfection without a highly manured soil. It will, indeed, grow anywhere, but will never attain a large size or handsome form in poor soil, nor in a confined situation. The soil, therefore, which suits the Onion should be made as rich and substantial as possible. Let a piece of ground be well dug and manured, for everything depends on this condition; make it very fine, by bruising all the lumps, and lay it out in beds of any convenient length, and about four feet wide, with alleys between them, about twelve inches wide. Rake the surface even, and sow the seed thinly and regularly all over the beds, broadcast or in drills; throw a thin covering of earth over the whole, from the alleys, and then, with the back of the spade, beat down the soil firmly. It is even advisable to tread down the soil over the seed, and then make the whole level by beating with the spade. The first sowing may be made in March or early in April, according to the weather and other circumstances. As soon as the seed has been sown, give the beds a good soaking of water, which should be repeated if the weather continues dry; but watering will not be necessary if there are occasional showers. The best time to sow the Onion is when the ground is moderately dry; and if it is wet, the sowing should be deferred, though you may lose a little time. Rake the alleys neatly, and trim the edges of the beds. All weeds must be carefully removed, as soon as they can be handled, as, if they are allowed to increase or grow large, they cannot be taken out of the ground without injury to the seeds or young plants. As soon as the Onions appear, and if the weather is very dry, the beds should be thoroughly watered, in order to refresh and invigorate the young plants, which, when they have grown two or three weeks, must be hoed or thinned, so as to leave only one to every four or six inches. Be careful to clear out all the weeds at the same time, using both the hands and the hoe for this

purpose. In three weeks more they will require hoeing again, partly because by that time there will be a fresh growth of weeds, and partly because there will be found many Onions that had not come up, or escaped notice, at the first hoeing, and therefore a second good hoeing, weeding, and thinning are quite requisite. When this operation is performed, the beds ought to be so clean as to require nothing more, unless it may be occasional watering, when the weather continues very dry and windy ; for wind is almost more powerful than sun heat in drying the soil, and thereby injuring the plants. As the crop advances, however, weeds will, of course, grow, and they must be removed before they attain much strength. The Onions are continued on the ground until the leaves turn yellow, when they should be pulled up and left on the surface to dry, before being stored away for winter use. If the weather be very wet when they have arrived at this stage, they had better be placed in a shed, where the air can reach them, without being exposed to rain ; and if they are so placed that the sun can reach them, so much the better is it for the bulbs, which, thus exposed, become thoroughly dry and fit for keeping. Another method of treating the Onion is to make a sowing in August, and let them grow until they ripen, or attain a very small size, which will be all that can be expected of them at such a season ; but they will be large enough for pickling, if wanted for that purpose ; or, if not, then in the spring of the following year, say April, they should be planted out, in very rich ground, previously prepared, keeping them six inches apart, and the base half-an-inch below the surface. Here they will swell, and become as fine as any from Spain or Portugal, if the seed be good and true. The seeds of pickling Onions should be sown on poor ground, late in the season, and should be of the sort called Silver-skinned. Onions may also be sown at any time, for drawing and cutting young ; but the best season is, of course, the spring, when those for keeping are sown,—that is, in March, April, or May, or at any time till June ; those intended to be used as spring Onions need not be thinned, as is the practice with those raised and

grown to be stored for winter use. They may be allowed to remain as they come up, unless the sowing has been badly performed; and in that case a partial thinning becomes necessary, where the plants grow very thickly. Let the largest and strongest always be first drawn, and in this way the Onion will continue to be useful for a long period. But if you require a second crop, make another sowing in June, in very rich soil, and in beds, in the same way as directed for the principal sowing. The manuring for Onions is generally somewhat coarse. Night-soil is, in our estimation, better than any other manure, provided that it has first been thoroughly decomposed. If a layer of night-soil and a layer of soil were continued, till a heap were formed as high as wanted, the night-soil would soon be disinfected and decomposed; and after laying up for a year, it might be used with great benefit, but should be sparingly mixed with the earth. Two inches of this compost may be forked into the ground, so that the first six inches of it would be manured. This would be attended with great advantage, especially if it were well incorporated with the soil; for on this point very much will depend. Pigs' dung, again, is not too strong for Onions, which, in fact, are grown by many cottagers oftener in soil manured with pigs' dung than horse dung; and these unpretending people frequently surpass the gentleman's gardener, in the production of large and fine bulbs. For the purpose of mixing in salads, a small sowing of Onions may be made in a hot-bed, at any time in the spring and summer, either by itself or along with other things. If to be sown by itself, it may only be necessary to make a moderately large bed. When you find that the bed has properly "sweated," lay in the soil, and rake it evenly all over, then sow the earliest sort you can obtain, thinly and regularly over the surface, and beat it down with the back of the spade. The young Onions will show themselves above the ground, which should then be watered, using rather tepid and good soft or rain water. They must have plenty of air, when the weather is mild and warm, but the light should be merely tilted up behind, during heavy rains, and very little air should

be given, if the weather is cold. If the sowing is made very early in the season, it will be proper to protect the plants, by covering the frame with a common garden mat, in the evening, when frost may be apprehended. When grown in this way, much attention is required in keeping the Onions clear of weeds, which, accordingly, should be removed as soon as they can be handled. Occasional waterings must also be given, as the plants advance, and when they have attained a few inches in length, they may be drawn, for mixing in salads or other purposes for which young and green Onions are generally employed. When raised in a hot-bed they grow fast, and soon become very sweet and mild, compared with some that are grown slower. In cases where the convenience of a hot-bed cannot be made available, the early crop may be sown on any warm and sheltered border, and protected with a covering of mats, supported on hooped sticks, across the bed, during severe frost, and more particularly at night. The seed should be sown in beds, thinly, and beaten down with the back of the spade. In three or four weeks the young plants will spring up, and they must be thinned and weeded as soon as possible. In this case, however, the thinning must be confined to the parts where the seed has been sown very thick, because, as they will be drawn as soon as they are large enough, there is no use in thinning them. In storing Onions, it is usual to tie them by the stalks together, in long rope-like bunches; they are plaited into these bunches by means of dry and slender straw ropes, and then hung up in a cool and airy room. When Onions are spread out on a floor, they should be occasionally examined, and such as have begun to sprout taken away from the rest, and planted in rows, either in beds or spare patches of good soil, in the spring, as early as the weather will permit. These may be used as "scallions," which form a good substitute for young Onions, in the early part of the season. Though Onion seed is seldom considered worth growing, in private establishments, yet if you wish to secure the seed of any large and handsome bulbs, plant them out in any convenient and sheltered spot, and before they begin to

grow. Let them be in a row by themselves, so that a few sticks and a line running along the row on each side will protect the heads—which grow on long stalks or scapes—from the action of the wind. When the seed ripens, cut off the heads, and keep them laid out on a sheet, either in the sun or on the floor of a loft, until they are thoroughly dry, when the seed may be thrashed, and put carefully in a bag, and hung up, or laid on a dry shelf, till wanted for sowing. Onion seed is apt to spoil, if kept in a damp place, and therefore care should be observed to lay it in a room in which the atmosphere is dry and moderately warm. The variety known as the Potato Onion produces no seed, and therefore requires to be treated differently from the common kind. It is quite hardy in our climate, and is raised by planting the offsets or small bulbs which form on the parent bulb. It requires, like the other kind, a rich soil, having plenty of dung mixed with it. In the autumn, prepare as much ground as will be sufficient for the supply likely to be wanted. It cannot be too rich, and it should be made rather fine by the lumps being broken or bruised. Then, at any time between October and March, proceed to make as many beds as you require; let them be about five feet wide, and have twelve-inch alleys between them. Draw shallow drills across the beds about a foot apart, and plant the bulbs or offsets at a distance of six inches from one another in the row; then cover them over with about an inch of soil. The beds may be freely watered if the weather is dry; and the weeds removed as they become large enough to handle. As the plants advance in growth, clear away the soil from the bulbs so as to expose them; and water twice or thrice a-week with dilute manure water. They will be ready to take up during the summer, and should be laid in some place where they may have the heat of the sun and plenty of air. When they are properly dried, tie them up in bunches, in the same manner as is practised with the common keeping Onion, or spread them out thin on the floor of a dry airy loft. Frequent examinations will be necessary in order to pick out any that may have become rotten, or otherwise unsound. The prin-

ciple Onions desirable for garden cultivation, are the White Spanish and Deptford, for a main crop ; James's Keeping, for a store crop ; and the Silver-skinned, for pickling. When very large bulbs are required, the Tripoli may be grown ; the latter is the variety most suitable for sowing in autumn to transplant on to rich ground in spring.

G. GLENNY.

Another Remedy.

EVERYBODY seems just now to be waging war against thrip, brown-scale, red-spider, mealy-bug, mildew, scale, and green-fly ; and quite right too, says many a reader, for my Roses were infested with nasty little green caterpillars, says one, while another deplors the prevalence of greenfly on his Geraniums or Cinerarias, and a third has not a Verbena fit to be seen, from the same cause, while others complain of thrip in their Ericas, Epacris, or some other favourite. Every season brings its various pests, and it is the work of the gardener to kill and destroy, otherwise he will find his labour thrown away. In a short article (page 54), we gave a receipt from Glenny's Almanack, for using a decoction of bitter aloes ; a friend who has tried it writes :—"Many thanks for inserting the paragraph on the destruction of aphides. I put half-a-pound of bitter aloes (I think the druggist called them Mocha aloes) in a pint of boiling water, and, having added about four gallons more water to this, syringed the whole of my greenhouse plants. This has quite destroyed all appearance of greenfly, with which I was sadly infested. It need not be washed off again, as it will do no harm, and will keep the fly from attacking the plants afresh." So much for our first remedy. Well, then, at page 80, we give another remedy—Coal-brasses. We have no knowledge as to whether this has

been tried in England or not, but we have a third remedy, "just out,"—the Gishurst Compound, an invention of G. F. Wilson, Esq., (of Price's Patent Candle Company). Mr. Wilson says:—"I have been for some time expecting that chemistry would suggest useful hints. My first attempt, hanging bottles of oil of cloves (almost the only one of its class which keeps off insects, and yet has a pleasant smell) round the trees, had little effect; but within the last few days I have made some experiments which promise to be useful. The antidote to red-spider and mildew, by all accounts, seems so far to be sulphur only, and being warned by my sister's withered leaves and fruit of the at least occasional danger of even moderately-heated sulphur, I thought of different means of exhibiting it (to use a doctor's term) effectually and yet harmlessly, and have, I believe, hit upon a good one, which I have found, when used to wash the red-spidered and mildewed leaves, or used, dissolved in water, with the syringe, to make the leaves look speedily healthy again." Mr. Wilson has sent a bar to Mr. Rivers, and after Mr. R. has tried it, he says:—"Six ounces to the gallon arrests it at once, indeed kills it (mildew), but it commences to grow again in the course of three or four days, and requires to be applied at intervals, say, of a week, during mildew weather. This autumn has been particularly favourable to its growth. My pot Roses have been saved by the soap, and are now, after three applications, nearly clean. It turned the "very young" tips of the shoots black, but not to any injurious extent. Eight ounces to the gallon makes the composition, or rather the water, too thick, so that it will not go through the syringe; besides, six ounces to the gallon is quite powerful enough. It killed the red fungus on Moss Roses, which is a great pest here, and in two rows of Moss Roses the mildew was at once killed, and has not grown to any extent since. I have found some Apple trees, in the open quarters, infested with red-spider. My foreman has given them a good syringing with six ounces to the gallon. I wish it had been introduced earlier, so as to try it on aphides." Another letter, from Messrs. Dickson and Sons, speaks

favourably:—"It speedily destroys the above-named insects, wherever the syringe or brush can be brought to bear upon them, without the slightest injury to the foliage or roots of the most delicate plants, and is certainly the most effectual composition we have met with for ridding us of these pests." So also does Mr. Rucker's gardener, Sir William Hooker, and several other persons. Mr. Wilson has kindly forwarded to us a sample for trial, and in a future number, after we have experimented, we will give further details. It is undoubtedly a very much cheaper application. It is a well-known fact that insects breathe through the pores of the skin, and it must inevitably follow that if these pores are filled up with an oily matter, such as the Gishurst Compound, it will cause death. We suppose that this is the reason why the sulphur is incorporated with an oily or soapy compound.

Timothy again.

THE communication of mine, Mr. Editor, has altogether elicited twelve replies, and it is a singular fact, that although all twelve think the suggestion good, and all agree that we really do want a floral exhibition, still all these gentlemen hold back, or, as the Irishman said, "are backwards at coming forward." Well as it is so, and none of us are willing to begin anything of the sort, it must to a dead certainty fall to the ground. I can only say that six out of the twelve communications all fix on, as hon. sec., a true florist and a gentleman fond of Roses and Rose shows, the Rev.——, no, I must not tell even the readers of the MIDLAND FLORIST; one gentleman also suggests that while that gentleman should be secretary, he should have several under or assistant secretaries; two gentlemen agree also that the exhibition should be held in the five old towns of Nottingham, Stamford, Leicester, Derby,

or Lincoln, the ancient burgenses of the Danish kingdom, each of the places having the convenient machinery, and could provide adequate accommodation. Another correspondent says it should be a migratory one, but that town raising the most money should have it first. The project is one that only requires spirit to carry it out, and I hope we really shall not let the matter rest until we have attained the object. I therefore leave the matter in the hands of the florists, and if they really do begin anything good, depend upon it I shall put my name down for a liberal subscription.

TIMOTHY.

Roses.

[Continued from page 48.]

HYBRID ROSES, from and between the Provence, the French, the Damask, the Bourbon, the China, the Noisette, and others, have hitherto furnished the staple materials of our horticultural shows and our professed rosaries. The climate of the Continent is better adapted than our own for the fertilization and ripening of hips; and from thence the majority of new Roses come; but still, those processes are not only possible, but many fine varieties have originated here. One curious fact thus demonstrated is, that in crosses between summer and ever-flowering or autumnal Roses, the progeny is almost always a summer Rose only, losing its power of continuing in bloom during autumn. To obtain a Hybrid Perpetual Rose, you must cross between two perpetual parents. Professed and long-experienced raisers of new varieties from seed have discovered other very curious facts and practical rules. Mr. Rivers instructs us that "when it is desirable the qualities of a favourite Rose should preponderate, the petals of the flower to be fertilized must be opened gently with the fingers; a flower that will

expand in the morning should be opened the afternoon or evening previous, and the anthers all removed with a pair of pointed scissors; the following morning, when this flower is fully expanded, it must be fertilized with a flower of some variety of which it is desired to have seedlings, partaking largely of its qualities. To exemplify this, we will suppose that a climbing Moss Rose with red or crimson flowers is wished for; the flowers of the Blush Ayrshire, which bears seed abundantly, may be selected, and, before expansion, the anthers removed; the following morning, or as soon after the operation as these flowers open, they should be fertilized with those of the Luxembourg Moss; if the operation succeed, seed will be procured from which the probability is, that a climbing Rose will be produced, with the habit and the flower of the Moss Rose, or at least an approximation to them; and as these hybrids often bear seed freely, by repeating the process with them, the at present apparently remote chance of getting a climbing Moss Rose may be brought very near. It requires some watchfulness to open the petals of the expanding flower at the proper time: if too soon, the petals will be injured in forcing them open; and in hot weather, in July, if delayed only an hour or two, the anthers will be found to have shed their pollen. To ascertain precisely when the pollen is in a fit state for transmission, a few of the anthers should be gently pressed with the finger and thumb; if the yellow dust adheres to them, the operation may be performed. It requires close examination and some practice to know when the flower to be operated upon is in a fit state to receive the pollen; as a general rule, the flowers ought to be in the same state of expansion, or, in other words, about the same age. It is only in cases where it is wished for the qualities of a particular Rose to predominate that the removal of the anthers of the Rose to be fertilized is necessary. Thus, if a Yellow Climbing Rose is desired by the union of the Yellow Briar with the Ayrshire, every anther should be removed from the latter, so that it is fertilized solely with the pollen of the former. In some cases, where it is desirable to have the qualities of both parents

in an equal degree, the removal of the anthers need not take place; thus, I have found, by removing them from the Luxembourg Moss, and fertilizing that Rose with a dark variety of *Rosa Gallica*, that the features of the Moss Rose are totally lost in its offspring, and they become nearly pure varieties of *Rosa Gallica*; but, if the anthers of the Moss Rose are left untouched, and it is fertilized with *Rosa Gallica*, interesting hybrids are the result, more or less mossy." By working out the foregoing hints, every intelligent Rose amateur may aspire to the honour of raising some long-wished-for flower. But many handsome Hybrid Roses have been the result of accident; for instance, Rivers's George the Fourth, an English flower, very dark and velvety, raised from seed more than thirty years ago. The original plant is still living. Not to enter further into pedigrees, first-rate Hybrid Roses are—Brennus or Brutus, very large and double, uniformly tinted with bright crimson; makes an admirable pillar, and is so vigorous as to form a tree, if budded on a tall stout stock. Brown's Superb Blush, very large and double, dark crimson centre, with the outer petals blush; apt to fail by monstrosity in shape. Fanny Parissot answers to the above description, but is more to be depended on. Chenedole, brilliant red, large, double, very vigorous growth. Blairii, No. 2, very large, blush, a free grower, with handsome foliage. Beauty of Billiard, middle-sized, of compact form, colour like a burning coal, one of the most vivid Roses existing, it actually shines as if it were on fire. Duke of Devonshire, rosy lilac, striped with white, well-shaped, imbricated. Hebe's Cup, or simple Hebe, full pink, large, cupped, a captivating flower in point of form and colour, but deficient in perfume; a highly-scented perpetual Hebe would be a great acquisition. Lamarque, velvety crimson-purple, one of the darkest Roses, should be shaded in hot sunshine. New Globe Hip, white, at first tinged with the palest yellow, cupped. L'Ingenue, creamy white, imbricated, Ranunculus-shaped, the first flowers apt to come defective or monstrous. Triomphe d'Angers, bright carmine, large, cupped, of weak and rampant growth, adapted for a weeping standard.

Pompone bicolor, small, very double, rich velvety crimson, apt to have an ugly green eye in the centre, vigorous growth. Tourterelle, bluish dove-colour, on the outer petals fading to slatey grey. Mordaunt Delaunay, pruned long or scarcely at all, produces garlands and bouquets of small blush Roses fading to white, of very pleasing effect. The above may be depended on as excellent varieties.

OF CLIMBING ROSES, useful for pillars, temples, verandahs, and running over the front of a cottage, there are several groups. The Boursault Roses, R. Alpina, the Alpine or Thornless Roses, are very distinct. They are perfectly hardy, of exuberant growth, if well fed, and afford a good foundation on which to bud other varieties, either as standards or trained against a wall. The Crimson Boursault, or Amadis, has an abundance and a long succession of semidouble effective flowers, and makes a gay covering for an arbour or rustic arch. The Blush Boursault, or Calypso, or De l'Isle, or Florida, or the White Boursault, is still more rampant. Its perfect bloom is extremely beautiful, very double, of delicate texture, deep blush in the centre, shaded to white outside; but the majority of flowers produced are imperfect and misshapen, as if some one had burst, by a kick of the foot, a cambric handkerchief rolled tight into a ball. These are the two leading types. Other Boursaults are Drummond's Thornless, Elegans, Gracilis, and Inermis, all of them different shades of rosy crimson and cherry-colour. As standards, they make enormous heads, which become pendant and weeping, if allowed to run on.

Primula Sinensis.

MR. EDITOR,—I have for some years been famous for my Chinese Primrose, or *Primula Sinensis*, and as many of the visitors to our garden have asked me how to grow them, I have thought that your readers might also like to have the few directions.

The seed should be sown in pots, about the end of July. It must be scattered rather lightly over the soil, and then, instead of covering it, I simply press the seed in, and lay a very little sand on the surface. On this I place moss, and water gently through this covering. Of course, this moss is only a temporary thing, and must be removed immediately the seed reaches the surface of the soil. The latter end of September, or the beginning of October, they may be placed in thumb pots and removed to the warmest part of the greenhouse, until they are well established; they may then be placed in a cooler part, and attended to carefully. In March they may again be shifted, and from this time until August, they may remain in the same pots, but the latter end of August I shift into ten-inch pots, and use a rich soil, taking very great care to fill the pots nearly one-third with broken potsherds, and, with careful attention, the plants will bloom in February, March, and April, and well reward all the trouble bestowed. Cuttings may be taken almost at any time, provided they have time to strike root before the winter partly sets in. They should be allowed to wither a little before planting.

W. S.

Weeds & Weeding.

HOW does your garden get on? is a question often followed by the reply, Oh, I am sorry to say it is smothered with weeds! a confession too often corroborated by actual inspection. A garden properly treated in reference to weeding is comparatively a rare sight, except in large establishments. We often see ground well laid out, and not deficient in valuable plants, which are, indeed, smothered with Sowthistle, Groundsel, and Chickweed. This state of things often arises from the peculiar arrangements people make with their gardeners, who visit the place perhaps once or

twice a week. The consequence is, that weeding is often postponed to other matters which are more pressing, and the noxious productions are allowed to grow rampant and run to seed. A second crop of weeds may thus often be springing up before their parents are dead, until the long deferred opportunity being presented, a desperate onslaught is made on the enemies, and for a few weeks a more decent aspect is secured. If, in all cases where the labour of a gardener is not sufficient, enough supernumerary help were secured, to prevent weeds getting ahead, the benefits would soon be manifest. We should like to see it acknowledged as indispensable, a *CONDITIO SINE QUA NON* in gardening, that no weed should be allowed to show a flower; for although this would not be all that neatness demands, the end would at length be attained, since without flowers there will be no seeds, and extermination must be the natural result. Let the amateur consider, first, how impossible it is to secure a pleasing appearance in the garden if weeds are allowed to grow, however small they may be. Compare the appearance of two beds, one quite clear and fresh raked, with another, sprinkled with weeds just displaying their cotyledons. How diminutive these may be, they mar the beauty of a parterre, and therefore should not be allowed to grow. Secondly, it should be borne in mind that rank weeds injure all growing crops, by taking from the soil that which is intended to secure their perfect development. It is vain to apply manure, if weeds are allowed to steal it. Thirdly, weeds which come to maturity send their roots deeply, and are not to be eradicated without considerable labour. Try to pull up Thistles, for instance, and they will break off at the crown, only to furnish an abundant second crop, in a few days; to be prevented doing further mischief, the root must be dug up, which, in a garden of any size, will be a work of time and labour. Fourthly, weeds are very prolific, and if allowed to bear seed, some years may transpire before the effects are obliterated. These four considerations ought to be forcible enough to induce every gardener to resolve that he will henceforth give no quarter to weeds. As it is the expense which is

often alleged as the grand impediment in the way of weed extermination, let the gardener compute the difference between a constant hoeing, &c., to prevent the growth of thieves, and the hard-tasked labour demanded to clear the ground when they are grown, and he will find, in a pecuniary point of view, the advantage is on the side of cleanliness. There can be no doubt which is really the cheapest mode, when the superiority of clean crops is considered. Ply the hoe, then, well, rake your beds often, and you will reap great benefits. If in any case great weeds have grown up, they had better be cleared away by hand, for if allowed to fall on the soil, they often take root again, or shed their seeds before they can be raked away.

BURGESS'S AMATEUR GARDENER.

Flowering Trees and Shrubs.



IF flowering trees and shrubs there is a great variety, and perhaps the Evergreens should take the lead. Rhododendrons are noble subjects, and the number of hybrid varieties that have been raised by crossing, are species, with others, which comprise every shade of red, from deep blood colour to blush white, from dark purple to the lightest tinge of lilac, and from deep yellow to pure white; in short the varieties are endless; they are very compact Evergreens, and profuse in their bloom. Laurustinus is not half so much grown as it deserves to be, for it is a winter flower, and is beyond measure interesting at Christmas, when its lively bunches of blossom give the most cheerful finish to the garden.

ANDROMEDA FLORIBUNDA is a splendid dwarf shrub, which is literally covered with its snow white spikes of buds and flowers, beautifully contrasting with the dark green foliage.

DAPHNES, an elegant shrub, with fragrant flowers, and a fitting companion to the subjects already mentioned. All these should grow in turfy peat earth, and the dwarf Daphnes should form the edging. Besides these, there are numerous varieties of hardy Heaths, of many different colours. The Arbutus, which will form a noble evergreen tree, blooms profusely, while only a dwarf plant, "and bears its blushing honours (the fruit) thick upon it."

GARRYA ELIPTICA has a dead green foliage and pendent flowers or catkins, which make it a beautiful object, but as

these come in the midst of winter weather, it should be sheltered from the north-east winds. Both common and Portugal Laurels flower with long spikes of white flower, but not until they have attained a considerable size. They all grow well in soil, of which the large portion is peat earth, though for Laurels it is not necessary.

MAGNOLIAS are magnificent evergreens and deciduous plants, whose flowers are very conspicuous; the former are very much advanced before they flower, the latter bloom when two feet high, and most of them before the leaves appear. Lilacs, double and single Almonds, dwarf and tall, are showy shrubs and trees. The Honeysuckle, which may be trained as a climber or a standard, may also be stunted as a shrub. Their beauty and fragrance entitle them to great regard. *Pyrus Japonica* may be grown in like manner, and these brilliant coral flowers form pretty objects. The double flowering Cherry is a fine tree, and the whole family of Thorns and *Mespilus* are fine objects.

RIBES SANGUINEA, the flowering Currant, is a fine plant in spring. Jasmines are very pretty climbers. *J. Nudiflorum* is just now showing its golden yellow blossoms all up its stems, and braves the bad weather as if it was its element. This can also be grown as a shrub, and flowers when a foot high. But we must not forget the whole family of Roses, which are the very life of a garden two-thirds of the year, but we must save that for another paper.

Carnations & Picotees.

AS you, Mr. Editor, request to be furnished with lists of florists' flowers, of well-known excellence, I forward you one of Carnations and Picotees, believing they will be found to be the best in cultivation.

CARNATIONS.

SCARLET BIZARRE.—Admiral Curzon, Mr Ainsworth, Sir Joseph Paxton, Music, Lord Rancliffe, Lord Lewisham, Duke of Sutherland.

CRIMSON BIZARRE.—Lord Milton, Black Diamond, Warrior, Falconbridge, Sarah Payne, Hope, Rainbow, William Caxton, Young Milton, Lord Goderich, Jenny Lind.

PURPLE FLAKE.—Premier, Squire Meynell, Earl Wilton, Mayor of Oldham, Favourite, Squire Trow, Beauty of Woodhouse, Julia, Lady Peel, Admiral Napier, Mango.

SCARLET FLAKE.—Sportsman, John Bayley, Firebrand, Splendour, Defiance, Ivanhoe, William IV., Cradley Pet, Lady Curzon, Christopher Sly.

ROSE FLAKE.—Lovely Ann, Poor Tom, Constellation, Lorenzo, Friar Lawrence, King John, Lady Ely, Uncle Tom, Ariel, Flora's Garland, Aglaia, Queen Boadicea.

HEAVY PURPLE.—Mrs. Bayley, Lord Nelson, Alfred, Mrs. May.

LIGHT PURPLE.—Amy Robsart, Haidee, Mrs. Eyre, Finis.

HEAVY RED.—Mrs. Norman, Mrs. Dodwell, Lauretta, Mrs. Hoyle, Mrs. Lochner, Prince of Wales, Doctor Pitman, Cedo Nulli.

LIGHT RED.—Mrs. Holbeck, Ada Mary, Charles Turner, Rosetta, Eugenie.

HEAVY ROSE.—Green's Queen, Alice, Venus, Mrs. Drake, Lady Grenville.

LIGHT ROSE.—Mrs. Turner, Bertha, Eva, Mrs. Barnard, Mrs. Crowe.

M. H.

My Flower Garden.

CROCUSSES gone by, Hyacinths growing, Early Tulips in full bloom. But as Crocusses look very untidy when the bloom is over, and all were in pots, plunged, I have replaced the Crocusses with small patches of white Aribies, Iris Pumila, Cheiranthus, Marshalli, &c. I have got the gold double wall flower, and Cinerarias ready to drop into the holes when the Hyacinths go off, and, behind these, I have Delphinium Formosum, scarlet Lychnis, and late Tulips to back up with; but as I have a great choice of subjects in pots, I

will not engage to follow my plan closely, if anything else comes into flower that pleases me more. I don't know how far it is wise to be premature, but I do not now expect any very damaging frosts; I have had a *Camelia*, a very handsome plant, in the open air, where it has been blooming well since the middle of February, although we have had some pinching frosts between dark and daybreak, morning after morning, but, although one very sharp touch rather spoiled the colours of those flowers that were full out, no other harm came to it. Two *Scarlet Geraniums* have also been in the same flower stand ever since the first week in February, and up to this time have braved the weather; certainly they look rather pale in the foliage, but not a leaf has turned, they have, with other plants, been on an ordinary stand, sheltered by the house from the north, and by a wall from the east. But I expected they would suffer, and, having plenty to replace them, never troubled my head about them, and so they were safe without. Had I been anxious and merely forgotten them, I suppose they would have been killed, or severely damaged. Some very clever people would have persuaded us all, that they had acclimated the plants, for that is a favourite crotchet with several who wished to be considered great authorities. I remember very well reading in *PAXTON'S MAGAZINE OF BOTANY*, directions for acclimating plants, and there were long and prosy instructions how to choose the place, how to drain it, and all the other particulars, how the plant was to be selected, and planted, and then the thing was done, because the plant lived through more than one winter. However, the blunder is not in the fact, but in the conclusion to which the writer jumped; instead of having changed the constitution of the plant, he had only found and made a warmer place for it; just so with my plants. I happen to have selected a warm corner, but if I calculated upon their standing one degree more frost than they would before I had removed them, I should be sadly mistaken. However, I know I shall be venturesome this spring, and begin putting out things before the usual time; I have only just sown *Asters*, *Stock*, *Marigold*, *Zinnia*, new *Everlasting*

flower, Balsam, *Acroclineum Roseum Grandiflorum*, (a new and very dear variety sent from Germany), *Petunias*, and *Verbenas*, in a slight hotbed, sown them very thinly, intending before April is out to prick them out round the edges of four-inch pots, about five in a pot, to grow till planting out time, which will be the middle of May. Before now I have begun earlier, and got so crowded up with the young plants, that they got drawn before I could plant them out, and they were all the worse for being kept so long under glass. I continue taking cuttings from *Hollyhocks* and *Dahlias*, but some of the latter have given me all I want, and I shall cut up the bulbs into two or three plants, which will send up stronger shoots than rooted cuttings would. I keep the potted *Hollyhocks* in cold frames, and find them do better than they do in the greenhouse or stove. Among the prettiest objects at this moment I must place the *Deutzia Gracilis*. In a cold frame, all the winter, where it still remains, it has done admirably well, literally covered with snow-white flowers. It is the most beautiful of dwarf-flowering plants, and I regret I did not strike hundreds, instead of less than a score. I shall sow along the borders, at equal distances, all the leading annuals, and none other, *Nemophila*, *Coreopsis*, *Larkspur*, new branching *Larkspur*, *Erysimum*, and *Indian Pink*. Of course, the seventh patch is the same as the first. By this I shall get the whole border furnished without one sort predominating, and in bedding out the different *Verbenas*, *Calceolarias*, and *Geraniums*, I can keep the colours well contrasted, so also in regard to the *Dahlias*, the colours of which are known at planting time. *China Asters* which are all colours, and *Stocks*, may be planted in threes, angular fashion, six inches apart. There is a dwarf *French Marigold*, which continues flowering till the frost cuts it off, and it must be a severe one to cut this down. The double white *Featherfeau* is an excellent companion, blooming the same height, lasting the same time, both continuing covered with a mass of double flowers, and forming an excellent contrast to the blue of the *Verbenas* chosen for the purpose, the scarlet of the *Geraniums*, and the bright yellow of the dwarf *Calceolaria*,

Aurea Floribunda. However, "sufficient for the day is the evil (and the good) thereof." The annuals are sown, the bedding out must be for the future. At this moment the weeds are making progress, but as I stir the earth between all the plants, in beds and borders, very frequently, the first stirring will settle them for a time, and the periodical repetition will doubtless keep them under, and I recommend this to all gardeners and amateurs.

Floriculture, what is it?

A QUESTION often asked of late by several articles which have appeared in the *MIDLAND FLORIST*, and which have thrown so little light upon the subject, being in fact merely old "cuckoo songs," very shallow, and scarcely displaying more than a smattering of the subject; the principle design of the writer appears to be to make the floral world believe that prior to "1832" every gardener and florist was devoid of common sense or taste, and I, although only a humble devotee at the shrine of the goddess, beg to offer a few remarks to show, that at least some parties knew what a good flower was previous to that date. In the first place, we will take the *Auricula*, and here we have no need to enter into detail, seeing that the greater part of the winning sorts, of the present day, were in cultivation long before that much extolled wonder of "1832" appeared. The *Polyanthus*, too, has had very few additions that can displace the old sorts since that date. Tulips, notwithstanding so much has been 'said and sung' about new sorts, and the half or two-thirds of a hollow ball, many of these that were winning sorts prior to that date, are winning sorts still; for instance take *Heroine*, exhibited nearly seventy years ago, and what feathered Rose was more conspicuous at the National the last season; *Charles X.*, too, with its numerous aliases of *Count Platoff*, (the original name), *George IV.*, *Royal Sovereign*, &c., &c., was also very conspicuous. In *Roses*, *Hollyhocks*, *Dahlias*, *Carnations*, *Pico-tees*, *Pinks*, *Pansies*, and many other things, there have been some wonderful improvements made in them of late, by the persevering industry of amateurs and florists. I admit many of the newly raised Tulips too, are real gems, and a few seasons more will develop a legion of these; and have not (I would ask) other things improved at an equal or greater rate? Science has made rapid strides in this country the last thirty or forty years. See the improvement in general traffic by railway accommodation; the magnetic telegraph; photography, and the fine arts; chemistry; and manufacturing in all its multifarious branches; and is it not likely that these things combined, have had a tendency to create a better taste in flowers, and induced amateurs and florists to greater energy, without any such rules, a thousand times

repeated. The man might as well attempt to convince the world that he induced Julius Cæsar to invade Britain with the Roman army. I have no wish to tell your readers what they already know, and may be termed "a demagogue," "a brainless phantom," or worse, for telling them anything, or may be cautioned "not to attempt to out-stare the sun." No matter, I have a public duty to perform, and must execute it, and will just ask a few questions for the gratification of a large class of your readers. Do you, or any of your readers suppose for a moment, that the late Mr. Pearson, of Chilwell, or Mr. Hufton, of Heanor, two enthusiastic florists of the old school, in the immediate neighbourhood, from whence the MIDLAND FLORIST issues, or the late Mr. Hogg, Mr. Lawrence, or Mr. Goldham, of London, the late Mr. Ward, and Mr. Norman sen., of Woolwich, or Mr. Smith of Feversham, who still survives at the great age of fourscore, and grows flowers yet, or Mr. Widnall of Cambridge, all men of honour and integrity, and scores besides, did not know when they saw a good flower? Or, are we, in this advanced age of science, to be made to believe that they were devoid of either taste, honesty, or sense, and that they "named anything good, bad, or indifferent, so long as it was anything new?" Monstrous absurdity!! Or are we to believe that the continental growers and raisers were equally stupid and ignorant prior to "1832?" Let common sense answer.

In the article under the above title, in the January number we have also an attack on the Rose growers and raisers. This is really too bad, to cast a stigma on General Jacqueminot. I must say that my wonder at the late barefaced recommendation of "eighteen good Roses" must cease, and consider his ideas as very meagre. In the first place, to have a good formed flower, we must have a good petal; we have that in the General; and I fearlessly challenge any man to name one, in the same class, with a better. All Rose growers, or most of them, know it is not a full flower, but a step in the right direction, and a fine sort to raise seed from, and many have already been raised from it. As to a profusion of buds, those can be thinned the same as Carnations &c. "It is loose;" yes, when it gets old. Secondly, "it has an ugly centre." Yes, so has some other things which I will not name. The third point is already answered; and the fourth flatly contradicted in the February number. No, I will not attempt to say more in its favour, than, one petal of the General, is worth the whole stock of some things, root and branch, lock, stock, and barrel. So much for science; but to my text. "The Science of Floriculture" or horticulture either, consists in a competent knowledge of it, coupled with assiduous labour, to raise every known species of plant, fruit, or vegetable, that is useful for ornament, luxury, medicinal purposes, or the sustenance of man, and the lower animals, and a judicious management of them; together with a knowledge of the application of soils, their preparations, and chemical properties, and a knowledge of chemistry, and chemical manures; together with a good knowledge of the various means of propagation, of hybridizing and fertilizing, of entymology and botany; these are the constituent parts of it, and, a series of articles, under these heads, from conscientious practical men, would adorn the pages of the MIDLAND FLORIST, and be a boon to its numerous readers. Floriculture as a science, does not (in my opinion) consist in vituperation, in calumny, in petulant arrogance, or egotism. And what has the MIDLAND FLORIST or its readers to do with any man's jealous animosities, and vindictiveness? Its mission should be one of love and philanthropy, to disseminate truth, and endeavour to raise the humble amateur and florist in the social scale of main progress. Neither is the science attained by

amateurs or cottagers, who pretend to be florists, and depend on their plants from "the gardener at the hall or the squires," and pay more for them, in some instances, in brandy or brown stout, than would have purchased a few first-rate things from a respectable nurseryman or florist. As to the advice so lavishly given in some publications, and recommendations laid down for the guidance of amateurs and florists, they make a display on paper, though many will find, who follow them, "they are taken in and done for." Lastly, I do not see that the MIDLAND FLORIST should be made a vehicle for any man's slander; it has now reached a respectable position, and I was one of its early contributors, and subscribers. So long as it is conducted in a proper spirit, and made, what it professes to be, a truly independent floricultural adviser and expositor, so long will it be supported. We want nothing but truth and honesty of purpose, and that will vouch for its respectability. If we are to hear of new and good things, or any improvements in the way of cultivating old ones, let us have it in a more Christian spirit. I have watched it through an eventful career, and if any one wishes to know whether I was a well-wisher of it, I beg to refer them to my "address to the floral community, signed an amateur," in the January number, 1857, and then judge for themselves; and, which if fully carried out on all hands, we shall see "that it must, can, and shall live.

JOHN WALKER,

Winton, near Manchester.

Best Fifty Dahlias.

THE amateur selecting from the following list of fifty Dahlias, and also of the twenty-four fancy Dahlias, will find the best sorts grown, and may rely on them as such, having myself grown them for competition, and cultivating this flower in the manner I do, I think I may safely recommend them. Indeed, were I to commence afresh, I should purchase this sort to grow from.

Alice Downie (Keynes).—White
Admiral Dundas (Lawton).—Buff
Cherub (Holmes).—Bright orange
Colonel Windham (Turner).—Deep rose
Commander (Fellowes).—Dark maroon
Dr. Gully (Fowler).—Yellow, edged with purple
Amazon (G. Holmes).—White and lake
Elizabeth (Barnes).—Beautiful pink
Empress (Procter).—Shaded peach
Hon. Mrs. Trotter (Reid).—White and rose
Lady Folkestone (Keynes).—Yellow and purple

Lady Franklin (Rawlings).—Shaded salmon
Lady Popham (Turner).—White and lavender
Lord Bath (Wheeler).—Dark crimson
Lord Cardigan (Keynes).—Reddish buff
Lord Palmerston (Holmes).—Crimson
Lollipop (G. Holmes).—Salmon
Loveliness (Alexander).—Pure white and purple
Marion (Fellowes).—Blush and rose
Miss Pressley (Turner).—White, edged with purple
Miss Watts (Turner).—White
Miss B. Cbutts (Turner).—Fawn
Mrs. Church (Church).—Deep yellow
Mrs. Edwards (Edwards).—Rose pink
Mrs. Critchett (Rawlings).—Bright buff
Pandora (Fauvel).—Shaded claret
Perfection (Keynes).—Orange
Pre-eminent (Fellowes).—Deep purple
Rachel Rawlings (Keynes).—Peach
Royal Scarlet (Keynes).—Crimson scarlet
Sidney Herbert (Keynes).—Ruby
Lilac King (Rawlings).—Lilac
Sir. F. Bathurst (Keynes).—Crimson
Sir Henry Havelock (Fellowes).—Orange scarlet
Standard Bearer (Alexander).—Dark puce
Triomphe de Pecq (Miquet).—Dark crimson
Touchstone (Fellowes).—Rosy purple
Venus (Rawlings).—Delicate blush
Village Gem (Green).—White and rosy crimson
Yellow Beauty (Turner).—Yellow
King (Rawlings).—Fawn, shaded
Constancy (Hopkins).—Buff, tipped with red
Princess (Rea).—Bright rose
Mrs. Legge (Legge).—Yellow and crimson
Duke of Wellington (Drummond).—Orange scarlet
Incomparable (Albert).—Carmine
Annie Rawlings (Rawlings).—Lilac
Miss Caroline (Brittle).—Blush, shaded
Sir J. Paxton (Dodds).—Yellow
Mrs. Turner (Church).—Fawn

TWENTY-FOUR FANCY DAHLIAS.

Baron Alderson (Perry).—Bright orange, tipped with white
Beauty of High Cross (Green).—Gold, tipped with crimson
Carnation (Keynes).—White, striped with purple
Charles Perry (Keynes).—Rose, tipped and striped with red
Cleopatra (Salter).—Orange yellow, striped with crimson
Comet (Keynes).—Red, mottled and striped
Duchess of Kent (Knight).—Yellow, tipped with white
Favourite (Keynes).—Lilac and purple, striped and spotted
Jupiter (Rawlings).—Maroon, tipped with white

Lady Parton (Dodd).—Red, tipped with white
Le Défi (Miquet).—Orange buff, striped with lake
Marc Antony (Salter).—Deep yellow, striped with red
Mrs. Boshell (Rawlings).—Blush, striped with maroon
Mrs. Seacole (Keynes).—Lilac, striped with maroon
Oliver Twist (Fellowes).—Purple, tipped with white
Pigeon (De Knyff).—White, with rose edge and white
Lady Scott Douglas (Dodd).—Lilac, striped with maroon
Queen (Rawlings).—White, spotted with purple
Topsy (Keynes).—Purple, mottled and striped
Souter Johnny (Dodd).—Lilac, striped with purple

RICHARD EDWARDS.

Our Miscellany.

MR. BURGESS, in his able article on "Annuals," in your February number, 1858, page 58, recommends sowing *most varieties* in a seed bed, and afterwards transplanting them to that part of the garden where they ought to bloom, but he has not told us *the names* of those which ought to be so treated, or rather, I should feel inclined to say, the names of those which ought NOT to be so treated, as my experience of more than half a century has proved to me that the exceptions are few indeed. I should say that, besides the Larkspur, there is not one that cannot be transplanted, with advantage, provided it be done carefully. In a French work, "*L'Ecole du Jardinier Fleuriste*," i.e., the "School of the Floricultural Gardener," anno. 1767, page 228, we have a list of plants which may be transplanted with their *first blossoms upon them* (en portant leurs premières fleurs), without suffering therefrom. I give it to you in the French; it is as follows:—Les Giroflées de toutes les espèces; Les Barbedun cre tontes les coulens; Les Reines Marguerites; Les Chrysanthemums; Les Jarobée d'Afrique; Le Soncy double; Les Pensées; Les ambretus au fienis du Grand Seigneur; Les Roses d'Inde; Les veuillets d'Inde velutés; Les veuillets d'Inde striés; Les Balserminées doubles and simples; Les soleito doubles and simples; Les amarances and cretes de corq; Les grandes immortelles; Le masùpula, et le muslecto; Lion quòque nian. The great advantage to owners of small gardens in knowing, before planting out, where they are to bloom, and what flowers will be double, must be so evident to all that I trust Mr. Burgess will favour your readers with more information on this important subject.

SENEX.

Notes and Queries.



WE have very curious questions occasionally put to us. One correspondent shall speak for himself.—“SOSTRY” will be glad to have the following questions answered in your next number (April). First. What is the difference between Cauliflower and Broccoli? What is the best time for sowing, and planting out? and when may a crop of each be expected? Second. What is meant by forcing? and is Rhubarb, grown under a pot, *forced*? Third. Will you name a few hardy Creepers that will do, planted in a box, to run down trelliswork? Fourth. Will the finer kinds of Pears grow upon a standard or espalier as well as on a wall?—We must answer seriatim. The Cauliflower differs from Broccoli, first, in being entirely divested of the strong Cabbage flavour. It has longer fleshy stems, it is milder and more tender, while the very best of Broccoli—that which most resembles the Cauliflower in appearance, Grange’s white—is infinitely stronger, more fibrous in its stems, which are also shorter in the flower stems, while the flower is close. Nevertheless, we are, every year, bringing the Broccoli nearer to the Cauliflower. The most essential difference is, however, in the hardiness of the Broccoli, which stands well through all ordinary winters. There is also one fact to be noted, the nearer we get the Broccoli to the Cauliflower, in edible qualities, the more tender it becomes. The most useful Broccoli are the sprouting and early Cape.—To the second question,—what is meant by forcing,—we have only to say that whatever brings a thing in before its natural season is forcing. Covering up Kale and Rhubarb is forcing; growing anything in a warmer temperature than the outer atmosphere supplies is forcing. The lowest stage of forcing is covering up from the frost; the highest stage is cultivating under glass, with artificial heat. As to hardy Creepers. Ivy is an evergreen, and the most hardy and effective covering; the Virginian Creeper is remarkable for its scarlet foliage, in the autumn; and Perriwinkles, as they are called, or botanically known as Vincas, of which there are several varieties, are also evergreens, and bear a pretty blue flower, but not much of it; then we have annuals, such as *Tropeolum Canariensis*, the *Nasturtium* family generally, *Nolana Prostrata*, and *Abroma Umbellata*, all useful, but depending for usefulness to the part they have to play. A simple negative is all we need give to the fourth question. Espaliers and standards have no reflected heat, nor is there anything to protect them from cold winds. There are many Pears that will do well on standards, but they are always later than they would be on a wall. The fine sorts, many of which are much larger, rarely come perfect as standards; they are blown about and bruised, and get marked and damaged for

keeping, and moreover, being exposed to all the inclemencies of the weather, are smaller in size, thicker in the skin, and are later before they ripen. The wall is best, espaliers are next, and pyramids, dwarfs, and standards last.

Having been a subscriber to your periodical for many years, I venture to ask for the following information. I have a small greenhouse, my residence being about thirteen miles from town. Will you oblige me with a list of plants that I should cultivate, so as to have flowers in bloom throughout the year, with the exception, perhaps, of the depth of winter? Be so good as to give the plants as they flower, in each month, say for January, February, and so on. I wish I could induce you to give a series of articles on greenhouse plants generally, such as you have written on the Camellia and Pelargonium, stating especially the *after treatment*. This is a great desideratum. All writers tell you how to get a plant into bloom, but they forget to state how it should be treated afterwards. In common with many amateurs, I have lost many plants through my ignorance on this point. A small treatise on the greenhouse and its management is still "a want." What we amateurs require is a list of plants that will give us flowers in succession, the mode of raising them, their growth, mode of treatment to bloom, and after management.—A SCRIBBLER.—"A Scribbler," if he refers to pages 33, 70, 144, 219, 299, 363, will find articles entitled "My Greenhouse," which will, we think, in a measure answer this query. We have no objection, however, to give lists of the plants flowering in the various months. Perhaps our indefatigable friend, Mr. Clecton, would give us a short article on the Azalea, while, from other sources, we will endeavour to procure the treatises as solicited. The list of plants in flower, in a greenhouse, during the next month, shall be given in the May number, the communication having arrived too late for an answer this month.—ED. M. F.

J. H. asks where he can obtain twelve good Geraniums cheap. This is a question we cannot answer in print. We are always aware where good plants may be obtained, but still we must not, in justice to ourselves or our advertisers, give the name of any firm in print. This, J. H. will see at once to be the best way of answering the question, but if he will send a directed envelope, a reply shall be sent.

TOWN GARDENING.—A town subscriber asks what are the best trees to plant in a square, nearly in the centre of a town. The best answer we can give is the list of plants and trees recommended by Mr. S. Broome, the gardener to the temple of forest trees. He says, "nothing does so well as the Oriental Plane. You may train it to any habit, and the more confined it is, the better it does. The Elm and Thorn do tolerably well.

The Lombardy Poplar is a capital tree for London. The Mulberry, Fig Tree, the Weeping Ash, Almond, and Sumach do very well. Irish Ivy does very well, if you want to cover a wall."

COVERING FOR FRAMES.—R. W. P. will find the following composition, if brushed over calico, to make an excellent covering for frames:—Three parts pale old linseed oil, one of sugar of lead, and four ounces of white resin; the sugar of lead to be ground with a small portion of the oil, and then the remainder to be added to it. The resin is to be then added, and the whole gently warmed and stirred till thoroughly mixed. The material to be covered is to be stretched and tacked to a frame or door, and the mixture laid on with a large brush. The next day it may be rolled up, or applied to its use, as a covering to frames or pits. The best way is to put it on a roller.—G. G.

PHLOXES.—Twelve (*suffruticosa*), for Early Flowering.—Addisonii, white, with distinct violet eye; Abd'el Medschid Khan, blush and pale rose centre; Countess of Home, white and crimson eye; Countess of Moreton, white; Colonel Dundas, pale lilac purple; Leonida; Magnifica, white, rosy violet eye; Masterpiece; Mrs. F. Winfield, ex.; Princess, ex.; Rubens, pink, striped with white, dwarf; Roi de Leopoldii, striped rose and white. These are from twelve to twenty inches high, and bloom early in June and July, and again in autumn. The colours are varied and very beautiful. They require a light soil, warm situation, and are more delicate than *Phlox decussata*.—Twelve (*decussata*), for Late Flowering.—Admiral Linois, rose, with carmine centre; Lychniflora; President McCarol, rosy crimson; Rubra, red carmine; Purpurea nora; Purpurea superba, rosy scarlet; Madame Fontaine, white and red; Madame Clarissi Fontaine; Princess Mathilde, rose and carmine eye; Madame Carcenac; Souvenir de 29th October; Madame Athertine.—These are from twelve to twenty-four inches high, with large heads of flowers. They have an agreeable odour, and bloom from the middle of July until November, are perfectly hardy, and grow well in a light loamy soil.—JACQUEMINOT.

Would you please to inform a subscriber *where* he can procure the six best Polyanthuses known, and their *names*?—S.

Will some contributor give the proper treatment of *Caladium Picta*?—FANNY, *Dursley*.

"Jacqueminot's" query on Lilies is partly answered by the article, pages 109 and 110, but more especially as regards the *lancifolium* tribe.—ERRATA.—For *Javanicum* read *Japonicum*; and for *Chalcedonium* read *Chalcedonicum*.

Calendar of Operations.

A ZALEAS.—Those which have been forced, and have done blooming, and have made one-inch of new wood, should be repotted, and placed in a temperature of sixty degrees by night, and seventy or seventy-five degrees by day. Repot all young plants that have made one inch of new wood, place them with the forcing plants, and maintain a high growing temperature, with plenty of air and moisture. Syringe the plants freely on fine days, shade from the mid-day sun. Keep a watchful eye after the thrips.—E. CLEETON, *Dumbleton, near Evesham, Gloucestershire.*

CHRYSANTHEMUMS.—(Large Flowering Varieties, Grown on Single Stems, as Specimen Plants for Exhibition).—Presuming that my directions for last month have been adopted, the plants will, during the present month, begin to assume a bushy habit, daily exciting the interest of the cultivator, who will be thinking about deciding in what form they shall be trained as they progress. As no mean portion of the beauty of a specimen plant consists in its being well clothed with healthy green foliage, from below the rim of the pot, continuous to the top of the plant; and, that you may better preserve the foliage in good colour and health, do not let them suffer from drought, nor yet too copiously supply them with water, as both extremes will soon change the colour of the foliage, from green to yellow and decayed leaf. Fix a stick to the main stem; to this loop your side shoots, and then proceed to bend some of them down to the edge of the pot; it had better be done gradually at two or three different times, as they require to be tenderly handled, the young wood being brittle and apt to snap. When you have completed the operation, and you find the plants are freely rooted in their present shift, you may stop all, or such shoots as you may think proper; the length you leave them, must be in accordance with their respective strength. Do not let the plants be cramped for want of space, or long jointed dwindly growth will follow. On very fine days you may syringe them with clear water. This will assist in keeping the foliage clear.—R. OUBRIDGE, *Stamford-hill, Stoke Newington.*

CHRYSANTHEMUMS (Pompones).—If potting on and stopping, as recommended last month, have not been attended to, no time should now be lost. From the shoots of those that have been stopped and have broken freely, a selection will soon have to be made, to start the plant fairly. Of short growers, seven shoots will be sufficient, and of long growers, five, the breaks to have at least three clear inches from the bottom to the top of the pot, and the remainder to be clean taken out, which will prevent confusion during their growth. Give air freely, and tilting from cold winds. Should there be any plants of weak growth, or breaking weakly, a few applications of weak liquid manure will be found beneficial, but at the same time avoid sudden excitement. Cuttings started at this time, and grown

as dwarf bushes, without pegging or twisting, to bloom in six-inch pots, will be found very useful for the greenhouse or conservatory. The mode of stopping holds good for those struck late, as well as for the specimens.—JAMES HOLLAND, *gardener to R. W. Peake, Esq., Spring Grove, Isleworth.*

CINERARIAS.—This is the month when the Cinerarias are in perfection. Intending purchasers should, therefore, visit the different nurseries, and judge for themselves. The principal part of the stock will now be in bloom, and should be shaded during part of the day, if the sun is out. This will prolong their beauty, and be the means of bringing up their colours. A little weak liquid manure should be given, in order as before stated, the greenfly will in a short time spoil the beauty of the flowers. I find nothing so good as *tobacco paper*, and I have heard the same remark from many successful growers of the Cineraria, the tobacco, in many cases, injuring the foliage, and not being more effectual in killing the greenfly. The plants must be constantly and regularly looked over, as they will require abundance of water. Cleanliness and order are essential that the plants may appear to the best advantage. Regulate and tie out such shoots and flower stems as require it. It will be an interesting month to seedling raisers, and my advice is, save nothing but what is an improvement, in some point, on existing varieties. Seed may be sown.—JOHN DOBSON, *Woodlands Nursery, Isleworth.*

EPACRIS.—North and north-east winds, and April showers, are visitors that require to be sharply looked to this month in the management of plant houses. Therefore, get the shades fixed at once, although it is not advisable to use them, except in very clear weather. It is better to be prepared for an unclouded sun, and a piercing north-east wind. At the same time they require the intervention of a shade during the heat of the day. Repot small and large plants as directed in my last.—E. CLEETON, *Dumbleton, near Evesham, Gloucestershire.*

EARLY VINERY.—*Forcing Department.*—The Vines in this house, will have made considerable progress. Stop the young shoots where not already done, at the first joint above the young show, leaving one bunch to a shoot, at the same time rubbing off all superfluous wood, leaving only a single break at each last year's shoot. Be careful in tying in the young wood, or they will easily break off at the base. Continue stopping the lateral shoots at the first joint, and look over them often. Attend to the outside borders, and where fermenting material is used, turn them over often, and add fresh when wanted. Keep up a steady progression of heat, working as much as possible by sun heat, seeing that is much the best. Look out for greenfly on Strawberries and other plants, and attack the insect in its early stage of life, for, if allowed to merge into the perfect insect, with his jacket of green, it will be a difficult task to destroy him. Heat, seventy degrees by day, with air, allowing ten of sun, and falling to sixty degrees during the night.—*Late Vinery.*—Keep this house cool and dry. If the buds should

be pushing too soon, and the fruit not wanted till late, shading with plenty of air, will be requisite; but if not wanted for plants, the lights may be left down day and night, except in heavy rains or snow.—*Peach House*.—Presuming the plants here to be in flower, keep up a brisk and lively heat, with “plenty of air.” While the Peach is in flower, avoid confined moisture by all means. This is the grand secret in the artificial treatment of all difficult plants, (even the Muscat Grapes, in an early house) and not a large rise in the temperature of the house, as many imagine. As soon as the plant is fairly set, the syringe might be again used, worked from the under side of the trellis at first. Begin thinning the young fruit early, and first take off those from the under side of the trellis. Keep all the dry places near the pipes sprinkled with a rose, and shut up early, with sun.—M. BUSBY, F.H.S.

FUCHSIAS.—The stock will be growing rapidly, and the early blooming plants will be gaining strength, and should receive their final shift by the beginning of the month. Water must be liberally given, and they must be occasionally syringed over the foliage. As soon as these plants get established in the pots, manure water may be given. Shift also the second lot of plants into six or eight-inch pots, and continue to grow them on. Determine upon the sort of plant you require, and stop them accordingly. By commencing in time, and by careful attention, the Fuchsia may be grown to any required form. Air may be given at favourable opportunities, as soon as the plants have recovered from the shift, but avoid cutting winds. By shading during the hottest part of the day, much of the foliage may be preserved. Careful attention must be given to tying them up, that none suffer from the matting cutting the stem, or from the loss of a shoot through inattention. Cuttings put in to the end of the month will make a succession of bloom up to the end of October. Watch well for the greenfly. Repot any plants that will be benefited by it.—JOHN DOBSON, *Woodlands Nursery, Isleworth*.

GREENHOUSE.—Give air freely to Heaths in bloom or advancing thereto, and endeavour to keep the surrounding air rather moist, but not stagnant. Hard-wooded plants generally, such as Hoveas, Boronias, Chorozeas, Acacias, with many others of that section, will now make a grand display. Attend well to the watering and aeration as before directed. Shift some of the best *Correas* for early flowering next winter; also some nice plants of *Mitraria coccinea* should be growing on fast for flowering in June and July. Remove all the blooming *Cinerarias* to the conservatory, as that will afford room for the successions to be shifted and brought on. The general stock of *Calceolarias* will be throwing up the bloom spikes, and should be supported by neat stakes; persevere in fumigation. The varieties of *Lilium japonicum* and *Alstroemerias* should now be more liberally watered, and placed in a pit near the glass. Attend to the stock of young *Fuchsias*; select some of the best to have a liberal shift for early flowering. Attend to previous

directions with regard to Pelargoniums; keep them as near the glass as possible, let them have plenty of room, and a free circulation of air; give also a due supply of manure water; pick off the blooms of such as are retarded for late blooming, and fumigate often.—*James Carter's Gardener's Vade Mecum.*

HEATHERY.—At this season, watering should be conducted with considerable care, more particularly to the recently repotted ones, which must not be overdosed, as the roots of all Heaths are extremely fine and tender. They will rot as soon as the soil is kept too moist, or shrivel up when the soil becomes too dry. Young plants should be placed in a pit or frame, near the glass, where the lights can be put on or off at pleasure. Guard against north and north-east wind. Shade when the weather is very bright.—*E. CLEETON, gardener to E. Holland, Esq., Dumbleton, near Evesham, Gloucestershire.*

KITCHEN GARDEN.—Particular attention must be paid early in this month to the sowing of the different varieties of Broccoli, Cottager's Kale, Borecole, Cabbage, Brussels Sprouts, Cape Broccoli, and Cauliflower. Let the beds have an open but sheltered situation, and be placed all together, so that netting may be stretched over to keep off birds. Sow Bath Cos, New Giant Cos and Paris Cos Lettuces for transplanting, and the different varieties of Cabbage and Silesian Lettuce in drills to be thinned out and left at the proper distances. Sow Musselburg, Leek, Salsafy, and Scorzonera, also Sion House, Newington Wonder, and Negro Dwarf French Beans on a warm border the last week; for earlier purposes sow on heat, and harden them to transplant under hand-glasses. Make successive sowings of late Wrinkled Peas, and let the ground be well manured and deeply trenched. Sow some Broad Beans, also Turnip Radishes about every ten days, and small Salading twice a week. Sow more of Early Dutch Turnip; and when the soil is in good condition, get in the main sowing of Long Surrey, selected Altrincham, and Intermediate Carrot; sow in drills. Carter's Deep Crimson and New Pine-apple Short-top Red Beet may be sown the last week in the month, at which time also the first sowing of Scarlet Runners should be got in. Plant out Cauliflowers, Cabbages, and Lettuces for succession, attend particularly to the pricking out of Celery from the early sowings, and sow more seed in the open ground for late crops. Prick out Bush and Sweet Basil, and sow more seed under a hand-glass on a warm border. Remove the hand-glass from Cauliflowers, earth them up in a basin-like form, and give them plenty of water and liquid manure. Tie up Lettuces for blanching, and keep the hoe constantly at work amongst the advancing crops.—*James Carter's Gardener's Vade Mecum.*

PANSIES.—It is pretty well known that the past season proved most unfavourable to the Pansy growers. The loss was considerable, and it has required some little skill to keep in a healthy condition such as were fortunately saved. Those that

are alive now will progress daily, and, to encourage them, remove all dead foliage, and stir the surface of the soil of those in pots. Those in beds will have been top-dressed, and may be expected to improve. Peg down the shoots of any that may have been loosened by the wind. Give air, night and day, to those in frames. Water occasionally with liquid manure. Plant out seedlings, and sow seed.—JOHN DOBSON, *Woodlands Nursery, Isleworth.*

PELARGONIUMS.—The May plants will be fast throwing up their trusses, and many will be in flower by the end of the month. The shading should be at once put up. This is very necessary, to keep the flowers longer in perfection, and many colours are improved by it. The kind of canvas generally used for this purpose, is about fourpence-halfpenny per yard. It is about a yard wide, and with care, will last two or three seasons. Previous to the plants coming into bloom, they must be thoroughly cleansed of greenfly. This can be done only by smoking two nights successively. After the plants have been fumigated, they should be well washed with a syringe, using soft or rain water for the purpose. Manure water may still be given. Look well to the shoots, and secure any that require it, and endeavour at the same time, to promote a regular even head. Avoid putting many sticks in among the roots. The June and July plants should be liberally supplied with manure water. Keep clean, and give all the room that can be spared. For a little late bloom, shift a few plants the beginning of the month, and stop back at the latter end.—JOHN DOBSON, *Woodlands Nursery, Isleworth.*

ROSES.—All planting should be finished, and should the weather be dry, do not neglect watering, and, if possible, mulching. Finish pruning early, but in some measure, be guided by the weather. If mild, and the eyes begin to push, do it at once, but if, like the last two or three seasons, a cold easterly wind prevails, defer it as long as possible.—*Roses in Pots.*—Plants in bloom will require shading, as the hot sun soon spoils them. Those done flowering may be treated the same as directed for young stock. Towards the end of the month, after shifting all that require it, plunge them in a well-prepared and rich border, where they will be sheltered from the mid-day sun, giving a top-dressing of good rotten dung, and watering when dry.

TULIPS are looking remarkably healthy, and promise an early and first-rate bloom; continue to protect from frost and heavy rains, but let the covering be on no longer than is absolutely necessary. Keep the bed free from weeds, and if not already done, the soil may be stirred about an inch deep, with a blunt stick. Should this month prove comparatively dry, give a good watering towards the latter end, through a fine rose. The evening is the best time, covering closely up until the next morning.—T. ALLESTREE, *Draycott, near Derby.*



MAY.

Camellias.

[FROM THE FLORIST.]

I AM an old Double White Camellia, and with a small collection of my family (forty in number), and many members of other families, live in a small lean-to house, thirty feet by fifteen feet, about four miles from Derby. Two drawing-room windows open into it, through one of which ladies and gentlemen frequently come to visit us. I could tell you many pleasant things we have heard them say about us, but that is not my object. I regret to say that we have also heard them say some things about us that make us all very unhappy, such as these: "They are very beautiful, but they never do well with me; I believe they require a hothouse in the spring." Another says, "I am passionately fond of them, but I scarcely get any blooms, as they drop their buds so in autumn." On these charges we have held a conference, and thereon decided that I should take our case into court, with a plea of "not guilty;" and in order that you may fairly plead our cause, I will acquaint you with our circumstances in connection with the case. To prove that we are not all plebeians, I append a few of our names. There is my sister, Fimbriata, old Double Pink, old Variegata, Elegans, and myself, are all old people, and have not been out of the house these seven years; indeed, to take such people as us through a doorway three feet by six, would certainly maim us, or break some of our limbs; then there are Her Majesty Queen Victoria, the Archduchess Augusta, the Countess of Ellesmere, the Countess of Orkney, Lady Hume's Blush, Mrs. Abbey Wilder, Cavendishii, Beali, Mathotiana, Donkelaari,

Imbricata alba, *Tricolor*, &c. To prevent any ill feeling in our family, I shall not enter into details on our respective merits, but merely say that we all grow freely, and that our blooms are abundant and fine, as many witnesses can testify. We generally commence flowering in November, and keep up a succession till April or May, but the height of our blooming season is in January and February. There is no hothouse or hotbed on our premises, at any season of the year; the only structures they have for plants are our own house, another greenhouse, twenty-seven feet by fourteen (kept rather cool), a brick frame, to keep bedding Geraniums in through the winter, and four wooden (cold) frames; our house has a double glass roof, and is warmed by hot water, in four-inch pipes. A self-registering thermometer is kept in the house, and in November, when the temperature falls below forty-five degrees Fahr., with air admitted, a fire is lighted, to maintain a temperature of forty-five to fifty degrees by day. It is lighted early in the morning, and let out in the afternoon, when there is no frost. Night fires are used, to maintain a temperature of from forty to forty-five degrees. Air is always admitted by day, if possible, the opportunity being watched for; but when the weather is such as to make it improper to admit it, the house is kept at the minimum temperature. In January, the heat is increased five degrees, by day, but not any at night; this is continued till the weather is warm enough to keep the house at from fifty-five to sixty degrees, by day, and forty-five degrees by night. In spring and summer we receive proper greenhouse treatment; when our work is done (our buds formed) we are not inhumanely turned out-of-doors, to the mercies of the wind and rain, but take a quiet rest in the house, being liberally supplied with air, by day, and also by night, as long as it is safe to admit it. We are inspected every morning, and if we require it, are supplied with water (rain or pond water), at a temperature of seventy-six degrees, and when our buds begin to swell off for blooming, we are supplied with weak manure water, at a temperature of from eighty to eighty-two degrees, and we receive it every watering till

our bloom is over; when that is the case our roots are examined, and such as require it are repotted into pots two sizes larger. The soil is composed of equal parts turfy loam and fibry peat, with a little silver sand, and some bones and charcoal broken up and mixed amongst it. Our leaves are sprinkled on fine spring mornings, after the watering is done, and as the weather gets warmer we have a shower from a syringe. Such as were not shifted in spring are examined in August, and if they require it then, are as carefully done as in spring. We are not shaded, but a slight shade would be very acceptable during very bright sunshine. That the water is given to us at the temperatures named is carefully ascertained by thermometer, but this is usually and easily done by the fingers. We regard as the reason why we do not cast our buds, and also as causing our blooms to last much longer.

In conclusion, I assert that our cause is a just one, and trust that from this plain statement of facts, our character will be fully vindicated, and I hope it may prove the means of increasing the popularity and numbers of our family.

O. D. W. C.

Pruning & Manuring Apple Trees.

ESPALIER Apple trees will again groan with Apples. They never fail here, except when the blossoms are cut off by frost. This proves the fallacy, held by many, that Apple trees will not bear more than one good crop in three years. Every Apple tree, standard or espalier, if pruned and manured, will bear every year. People feed their orchards with sheep, never prune, carry all the manure to the hill tops, and then complain that the trees are triennials. Let them cut out the old wood, manure the trees, or feed old broken mouthed ewes with oil cake and turnips, and let them leave the manure, and, barring frosts, they will

have good crops every year. Why do the tips of Apple trees die off? Simply because they cannot get food enough to sustain heaps of old wood and new. Espalier trees here never fail. Why is this? Because the trees are pruned, and the contiguous beds are highly manured. I regret to say that the frost, with thermometer at twenty degrees, has destroyed Apricots, Peaches, and Nectarines totally in twenty acres of walled gardens, in this neighbourhood. My Nectarines are destroyed, save six, and my Apricots never bloomed. My sheets have saved, on three Peach trees, thirty-nine, one hundred and nineteen, and ninety-seven well set Peaches, nicely dispersed, so as to need no thinning. Last year, the three trees brought to perfection one thousand and twenty-four. I must, however, seeing the havoc around me, be contented. To-day (April 15), the ground is covered with snow, wind north, and cold, with the certainty of frost. I wish to ask rabbit-net or fir-bough protectors what chance wall fruit can have under such circumstances? Many Gooseberries have been cut off. Red Currants, I think, will be generally scarce. Raspberry canes look well and strong, and Black Currants will be abundant, but loud and wide-spread will be the cry, "My wall fruit is gone." Strawberry plants here were never stronger, nor more like business. My Keens and Ananias Lecoq will astonish Mr. Milne (Hull), and Monsieur F. Gloede, who are both coming in June.

W. F. RADCLYFFE

Rector of Rushton, Blandford, Dorset.

Chapters on Roses.

CHAPTER II.

SUMMER ROSES.—It is scarcely necessary to observe that the Roses in this class flower but once during the season, and are so styled in contradistinction to the perpetuals, which latter give a succession of flowers from June, until the autumn frosts put a stop to any further vegetation out-of-doors. This

once numerous class or rather classes (for they are placed in several divisions in the catalogues), are now much reduced in number, and have given way to the perpetuals. The habit of continuous blooming is certainly a very desirable quality, and a Rose with this habit, and equal in every other respect to a summer Rose, is the most desirable variety. Yet, among the summer Roses there are some that are both superior and distinct to any varieties of perpetuals now in cultivation. These we will attempt briefly to describe. They are selected from perhaps more than ten times the number of varieties that we have grown, in our Rose nursery; the height is what a tree would be when in full flower, and, if properly trained, would be as much through, and covered with flowers. Belle de Legur, pale flesh colour, flowers medium size, perfectly double, petals symmetrically and concentrically arranged quite to the centre, growth from one to two feet. *Boula de Nanteuil, colour dark crimson purple flowers, large cup-shaped petals, regularly arranged, wavy from the centre; like some of the species of *Agarie*; growth two feet. Charles Foucquier, colour cherry red, flowers quite double, medium size; more like a good *Dahlia* perhaps than any other Rose; growth from six to eight feet, consequently a pillar rose. Comte Plater, colour cream, tinted with fawn, flowers medium size, cup-shaped, petals regularly arranged, wavy, growth two to three feet. Cynthie, colour pale rose, margin nearly white, flowers globular, growth two feet. D'Aguesseau, colour rich crimson, shaded with purple, very double flowers, large, growth two feet. *Emmerance, colour pale lemon, perfectly double, fine shape, distinct from any other Rose, very beautiful flowers, medium size, or rather small, growth from one foot to one foot and three quarters. Felicite, colour pale flesh, with pink centre, beautiful shape, very double, with the petals arranged as symmetrically as in a fine *Ranunculus*, growth two feet. Grain d'Or, colour rosy crimson, flowers rather small but very double, beautiful shape, growth small, about one foot. Kean, colour scarlet crimson, flowers large, cup-shaped, always fine, growth three feet. La Ville de

Bruxelles, colour light rose, flowers large, cup-shaped, very perfect and beautiful, growth (vigorous), three feet. Letitia, colour rose, veined with red, very double, flowers large, growth two feet. Madame Audot, colour pale blush, flowers large, growth two feet. *Madame Hardy, colour pure white, flowers large, fine shape; the best white Rose in cultivation, but apt to come with a green bud in the centre of the flowers; growth two feet. Neron, colour red, spotted with purple, flowers medium size, fine shaped, distinct and curious, growth from one and a half to two feet. *Eillet Parfait (Perfect Carnation in English), colour white, striped with rosy crimson, flowers medium size, good shaped; the best striped Rose in cultivation; growth one and a half to two feet. *Ohl, deep rich crimson flower, flowers very large, fine shape, growth two feet. *Paul Ricaut, colour bright crimson, flowers large, very double, and beautifully shaped; raised four or five years ago, and perhaps the finest Rose in cultivation; growth four feet. Renoncule Poncteau (spotted Ranunculus), flowers small, exactly like a spotted Ranunculus; different from any other Rose, and very pretty; growth two feet. *Schismaker, colour bluish purple, flowers large, double, and good shape; an approach to what we shall probably never see, viz., a blue Rose, very curious and beautiful; ought to be in every Rose garden; growth from two to three feet. Shakspeare, colour rose, centre purple, very double, and perfect shape, growth from one and a half to two feet. Sophie de Marsilly, colour blush, centre rose, very double; requires dry weather to open in perfection, and is then very beautiful; growth one and a half to two feet. To those requiring a smaller number of summer varieties we have marked with an asterisk, and the most desirable in even the above small number we should recommend to be grown on their own roots, and either intermixed with perpetuals or singly, on the borders, with flowers or flowering shrubs; for, however beautiful a Rose may be when in flower, it is an uninteresting object at other times, and by adopting the arrangements indicated, they would be partially concealed, and other plants would enliven the garden before and after the flowering of the summer Roses.

In addition to the above, there is the old Double Yellow Rose that rarely opens its flowers in perfection; the Persian Yellow, of a fine golden yellow, perfectly double, and a free flowerer, except in the smoky atmosphere of towns, where it will neither flower nor live. In Sweetbriars, Celestial is perhaps the best, with rather small double pale blush flowers, and leaves very fragrant. Then we have the numerous varieties of Summer Climbing Roses, but these are generally inferior and uninteresting. Laure Davoust, rose; Felicite Perpetue, creamy white; and Myrianthes, blush, are three of the best. Perpetual Climbing Roses are still a desideratum, and these we may reasonably expect will be raised by crossing the strong-growing Perpetuals and Noisettes with the Summer Climbers, and until these make their appearance we have no hesitation in saying we should prefer the common and crimson China to any Summer Climbers now in cultivation.

[To be continued.]

T. ALLESTREE,

Draycott, near Derby.


Growing for Size & Growing for Flavour.

A RESPECTED correspondent, who cannot agree altogether with our answer about Pears, on a wall, reminds us of the lad, who, when asked which he would have, tea or coffee, said beer. Our answer to the question put to us was quite right, but our friend, C. E., opens up another and a wide field, which we have ploughed pretty often, and will do so again, for it is by no means unprofitable. The following has been our text for many:—"All things are stronger in flavour when grown slowly, and milder when grown rapidly." This does not apply merely to Pears, but to every kind of vegetation, from small Salad up to a Drumhead Cabbage; from a Pear to a Pumpkin. There is, then, a great fact to work upon. In fruit, the stronger the flavour

the better ; in vegetables, it is the reverse. But it is worth while to watch this fact through everything. A Radish, of slow growth, is so strong that it is scarcely eatable, but one, rapidly grown, from the same bag of seed, will be mild and pleasant ; a Cabbage, that has been a long time growing, is unpleasantly strong, but one of free and rapid growth is always good. Hence, where strong flavour is desirable, we act accordingly. Turnips, long on the ground, and of slow growth, make but a sorry accompaniment to the leg of mutton, whereas, when grown quickly, nothing can be finer ; it is also strongly developed in Onions. The Spanish Onion is grown to the enormous size it is imported, in an incredibly short time, while, with us, the same seed avails but little, for ours are on the ground for months, and then not so large, but much stronger. Some can grow them faster than others, and they are correspondingly milder. No matter to what subject we turn in the vegetable world, the same principle holds good. In fruit, the common acceptation of the term fine, is large. People crack up the Jersey Pears, why ? Because they are large. They grow rapidly, and the flavour is mild. The same Pears, grown in England, will not be half the size, but they are not mild ; they are of a stronger and richer flavour than the monsters from the Channel Islands. It is very easy to decide what grows fast. It would appear that, in a field of Cabbages, where all are sown the same day, and all are planted out the same day, there could be no difference ; but there is. Select the largest, because that has grown faster than the others, and you will find that it has grown double the size in the same time. The same may be said of a Pear tree, when loaded with fruit, and when the largest have grown faster than the smaller ones. To carry this further. Select one of the smallest, a stunted ill-shaped specimen, that has been the same length of time reaching a third of the size, and you will have a fine rich aromatic flavour, far better than that of the full-grown fruit. Try this by what test you will, and the fact will be confirmed. But there are Pears whose flavour cannot be fairly developed without a wall, and, while we

admit that on a standard they would be smaller and better flavoured, if they would perfect themselves, there are many disadvantages. An Apricot, grown on a standard, is much smaller and very far superior in flavour, if it ripens at all, but they so often fail altogether, from their exposure to winds and rains, that people do not generally adopt them. Many Pears cannot stand the open ground, in rough seasons, and, in the common acceptation of the word fruit, is always finer on a wall, that is to say, always larger, for that is the only sense in which the word fine is understood, unless joined to some other words, as fine colour, fine flavour, or fine anything else. But, bearing in mind the general principle, that the faster a thing grows the weaker the flavour, and the slower it grows the stronger, people may study with advantage to promote the one or the other. Nobody wants a Turnip that would "bite his tongue," nor a Peach full of water, instead of rich sweet aromatic juice. We have only to make up our minds which we would promote, and act accordingly. Take the most stunted Pineapple and compare it with a full-sized fruit of the same age, and the little one will be found vastly superior in flavour; and so it is with everything.

Nottingham Chrysanthemum Exhibition.

 HE arrangements for the very excellent exhibition of this fashionable favourite are now completed, and we think it may not be uninteresting to many of our readers to give a short description of the schedule before us. The exhibition is got up by the leading growers of the Chrysanthemum, in the midland counties, and is open to a circle of thirty miles round Nottingham. The committee and officers are represented by twenty-three really warm-hearted florists; they have already solicited and gained the patronage of the mayor, E. Patchitt, Esq., the ex-mayor, L. Heymann, Esq., R.

Birkin, Esq., the Rev. S. R. Hole, and numerous other influential gentlemen of the district. The judges are our old friends, Messrs. Broome and Bird. After the usual rules, we come to the schedule, commencing with Class A, which consists of twelve dissimilar plants, large or small varieties, and has seven prizes, representing a total amount of nine pounds. Class B. Six Pompones; six prizes, and represents seven pounds. Class C is the same, only large-flowering instead of Pompones. Class D comprises three Pompones, has six prizes, amounting in all to four pounds. Class E represents the same amount of prizes and money, but is for large-flowering varieties. The best specimen plant (Class F), contains fourteen prizes, amounting to a total of five pounds eighteen shillings. For twelve cut blooms there are six prizes, and one guinea is awarded, while the class for twelve Pompones is equally represented. Six blooms have six prizes, or fifteen shillings, and so have six spikes of Pompones. There are prizes for best bouquets, best bloom, best specimen plants of this, and best specimen plants of that. There are, we believe, eighty-one prizes to be competed for. We think the committee deserve very great credit for issuing so respectable a schedule, not made for any class of persons in particular, but with chances, and very good chances too, both for rich and poor. We should not have gone so far out of our way to describe this schedule had we not received several communications on the subject.

*H*YACINTHS.

I NEVER could bear to see things wasted. Waste not, want not, was my mother's saying; and a right good one it is. People would be better off, if they had sense enough to do accordingly; but they haven't. So it always went to my heart to see heaps of things that once were handsome thrown alive on the

rubbish heap, because their beauty was gone. I often wondered how the young ladies that treated poor Hyacinths so would feel, if they were pushed out-of-doors, in the days when their soft cheeks, sparkling eyes, and ivory teeth have departed. Ah, me! they wouldn't like that, I warrant you. What's the matter with a Hyacinth, when its flowers have dropped off, in my lady's chamber? It isn't dead. By no means. There is plenty of life in it yet, though it is sick, and if taken care of, will bloom again and again. So, when the housekeeper used to tell me "to take them things away," I always had a fancy for seeing whether I couldn't bring them round; and sure enough that was easy enough to do, for they only wanted to be planted in the border, and to have their delicate leaves sheltered from cold, at night, and the sleety storms of spring; and then they went on growing, and got greener and greener, and stiffer and stiffer, till the time came for them to wither, as their nature is. Well, next year they'd peep up again, in the month of March, pretty strongish, a good many at least, and some would flower, weakly to be sure, but still they showed that their lives were safe. Next year, they were all right, and, to my mind, finer than ever. "Glasse!" says my lady to me, one day, "Glasse! where did you get that beautiful row of Hyacinths from? I am afraid you have been extravagant, and I shall have a long bill to pay." (My lady need not have said that, for I never was extravagant; waste not, want not, for me). "If you please ma'am," says I, "I got 'em out of the rubbish." And then I told her how. And wasn't my lady pleased, for uncommonly handsome they were, not a bit like the long-legged spindling puling things in the drawing-room, that wanted three supports for every one, to keep 'em upright. These were as stiff, and sweet, and fresh, and bright coloured as they could anyhow be where they grow wild, wherever that is. And so they were for many a long year after.

My lady called to me about a year after I told her how to cure faded Hyacinths. "Glasse!" said she, "I have been on a visit to the Marquis of Silverspoon,

where, you know, there is a very fine garden, and a very great gardener, and one day I told Mr. Figg, the gardener how very successful you had been with the Hyacinths; but he said he had tried your plan, and it would not answer, and that it was much better to buy fresh roots every year." Says I to my lady, "Ma'am, waste not, want not, is my opinion; and the proof of the pudding is in the eating on't. Your ladyship knows whether my Hyacinths are good or bad, and I think Mr. Figg had better try again. If it answers in our little place (it wasn't little though) it might in my lord's big one, unless Mr. Figg holds his head so high that he can't see such small matters as a row of Hyacinths." "That's very true, Glasse," said my lady, and she walked into the great Yew walk, where 'twas a rule not to follow her. Thinks I to myself, thinks I, that Mr. Figg is the great gardener whose Grapes are always a shanking, and whose Cherries won't stone in his Cherry-house, and whose Camellia blooms, somehow or another, will tumble off before they are half open. I wonder what he did with his Hyacinths. Now it happened soon afterwards, that a chap who had worked under Mr. Figg, came to our place, to see if I could give him work. He was a sort of relation of mine, by name Reuben Hardhand, for his aunt was Mrs. G.'s third cousin, and being an industrious young man, I asked my lady if I might take him on for a few weeks, and my lady kindly said, "Oh, yes, Glasse, and if he is not afraid of work you may keep him on, for I'm afraid that poor Robert—that was a young man who chopped his foot with an axe—will never be fit for garden work any more." My lady was always good to the people about here. So one day I asked Reuben whether he knew what Mr. Figg did with the Hyacinths, when he turned them out; and he told me that he made in the ground, holes, with a dibble, shoved them in, and stamped the earth hard round 'em. "Didn't he put anything over them, to keep them from frost at night?" "No," says Reuben, "he said they were hardy enough, and didn't want; and when the foreman mentioned one day that the roots were all doubled up in the holes, he told him that it didn't


signify, for such roots were no good." So I asked Reuben what he thought about it, and the young man answered that he didn't know, but he thought it a rummish way. "Well, Reuben," says I, "when you have to turn out Hyacinths, don't do like Mr. Figg. You draw a straight line on a border of good mould (it needn't be very light, if it has been well worked), and then make a cut as deep as your spade, drawing the mould well forward, so as to leave a nice smooth back to the cut, slanting a little towards you. Have ready some silver sand, mixed with a little leaf mould. Then go down on your right knee, and with your left hand lay the Hyacinth against the back, pressing it gently into the mould, so as to give it a little hold; then, don't leave go, but, with your right hand, put all the roots straight and comfortable, and put over them a good double handful of the sand and mould; then put over that enough of the mould of the border till everything is placed firm, so that the Hyacinth can't slip. Go on in this manner till your roots are all planted. Then lay gently, over the whole line, the mould of the border, minding to keep the top of the Hyacinth three inches below the surface. Don't tread them down by no manner of means, but give them a good watering, with milk-warm water, till the soil is a puddle, then draw a little loose mould over the puddle, and the job is done." When Reuben got a place, he did as I told him, and his Hyacinths were very near as good as mine.

MR. GLASSE,

Gardeners' Chronicle.

Winter Flowering Carnations.

[FROM THE FLORIST.]

 HIS beautiful class of plants is not half so well known or cultivated as their fragrance and easy culture entitle them to. I am, therefore, induced to lay before your readers my system of culture. I have been a successful grower of these flowers for

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many years; they are, moreover, great favourites of mine; and as plants to cut from, for bouquets or drawing-room decoration, they are indispensable, for they last a long time in bloom, and remain in beauty a great while after being cut. But this is not their only merit, they have other claims on our notice, for they bloom at a season when Flora has generally but little to present us with. With proper care, they will flower in pots from October till May, and longer, by giving a slight shift in March or April; and, with a good collection, you can cut as many as you like; for cutting the flowers is rather beneficial to them than otherwise, inducing them to throw out flower buds at the joints below. As regards varieties, I shall not trouble you, as their name is legion. I cultivate about thirty-eight, which are all very beautiful, and they produce an endless variety of markings and colours, such as yellow blotch, rose and purple blotch, and scarlet and crimson flakes; white, edged with pink, rose, and crimson. Then we have selfs, in great variety. All who wish to cultivate this class of plants, cannot commence at a better time than now, for they are all very cheap, and are easily procured from any good nurseryman. I propagate mine from cuttings, every season. I take them off about the beginning of October, choosing the best and stoutest shoots; they are made in the usual way, by cutting to a joint, and removing a small portion of the tops of the grass; they are then inserted thickly round the sides of four or five-inch pots, and made firm, using for soil, equal parts leaf mould, loam, and sand; they are then placed in the bottom part of some cold frames, along with bedding out plants, and are always shaded, when the sun shines strongly; watering as may be necessary. Here they strike slowly, and are all rooted by the beginning of March; they are then potted off into three-inch pots, using for them good sound mellow loam, with a good mixture of sand and rotten dung; they are then placed into a cold frame, by themselves; they are kept shaded for a few days from the sun, and advantage taken of the sun's influence, by closing rather early in the afternoon; and a slight dewing with the syringe is given them

for about a week or ten days, to induce them to take to the fresh soil, and make fresh roots quickly; after this, they get all the air possible by day. By the beginning of April, the pots will be full of roots. At this stage, I pinch out the centre of each, which induces them to break well all round, and when they have made shoots about an inch or so long, they are then put into thirty-twos, or six-inch pots, using for them three parts sound loam, well chopped up, but not sifted; the other part to contain about equal sand and dung, well decomposed. Let me here say that I think the cause why some fail to bloom this beautiful class of flowers satisfactorily, is want of stopping at the proper time, and then not waiting till broken properly, and planting them in much too large pots—eight, ten, and twelve-inch ones I have seen them in frequently. It is a great mistake to use such large pots. After they are all potted, sticks are placed in the pots, in readiness to tie the shoots to, as they advance; and, at the same time; all the shoots are thinned out to four, which I have found better than a larger number. The pots are now plunged into the ground, up to their rims. The plants get a watering and a tying up, when necessary. By the beginning of September, they will begin to show bloom buds; they then get lifted from the ground, and a little weak liquid manure is given them, about twice a week; and, if mildew makes its appearance, as it will some seasons, I dust with sulphur; but, if greenfly, which I have never got on mine, attacks the young shoots, prepare some tobacco juice, and dip the young shoots into it. The pots are all washed, and then removed to an airy vinery, for a week or two, or any place at command. By the middle of October, the earliest varieties will commence to bloom, and others will quickly follow. If kept in a greenhouse, the heat of which is kept up from forty-eight degrees, by night, to fifty or fifty-five degrees, by day, from November till the end of February, they will keep gay and interesting during that period. I take off cuttings, as before, in October, after they have finished blooming, which will be about the end of April and May. My old plants I transplant in the borders of the flower

garden, where they soon commence blooming again, and give me a second supply of beautiful fragrant blossoms, which are, at all times, greatly prized.

C. W. C.

Roses.

[Continued from page 124.]

AYRSHIRE ROSES—*R. arvensis*—are nearly as vigorous as the preceding, quite as hardy, and will serve the same purpose. They are mostly shades of blush and white. *Rosa Ruga*, or the Double Ayrshire, the Queen of the Belgians, the Dundee Rambler, and *Splendens*, are the best of these, and very elegant they are, in their peculiar style. The Evergreen Roses—*R. sempervirens*—are named according to what we wish them to be, rather than to what they are. They have smooth, shining, handsome foliage, which looks as if it ought to be as evergreen as a Laurel leaf; and the habit of their growth gives you the idea that they certainly might flower all the autumn through. But they don't. The best of them is *Felicite Perpetuelle*, an elegant climber, with clusters of small, very double, pinky white blossoms. *Donna Maria* is very pure white, as if the petals were made of rice-paper, with graceful foliage, but more tender than the above. Grown as weeping standards, they should be suffered to make a cataract of drooping branches, without restraint. *Adelaide d'Orleans* is not very, if at all, distinct from *Felicite*. *Brunonii* has the merit of being rosy-crimson. Beware how you prune any of the above. They may be made to climb up trees like Honeysuckle. Of the Prairie, or Bramble-leaved Rose—*R. rubifolia*—from North America, the best, perhaps, is the Queen of the Prairies; but florists apologise for them, by stating that "the group is in its infancy." The Banksian Roses—*R. Banksiæ*—from China, white and yellow varieties, are half-hardy climbers, which

must have plenty of space to ramble over, and a sheltered situation. If kept in bounds with the knife, they will only make the more wood, and "won't" flower. Dead wood and irregular shoots must be rectified with finger and thumb. In all the *Banksias*, the blossoms are very small, in clusters, and very fragrant. Were they hardy, they might be budded on the tallest procurable stocks, to make trees of the magnitude of Weeping Ashes. For instance, at Toulon, there is a *White Banksia* which, in 1842, covered a wall seventy-five feet broad and eighteen feet high; when in full flower, from April to May, there were not less than from fifty to sixty thousand flowers on it. At Caserta, near Naples, there is another plant of the same variety, which has climbed to the top of a Poplar-tree sixty feet high. And at Goodrent, near Reading, there is a *Yellow Banksia* which, in 1847, produced above two thousand trusses of flowers, with from six to nine expanded *Roses* on each truss. The many-flowered *Roses*—*R. multiflora*—from Japan and China, are very pleasing climbers, with numerous clusters of small flowers, of shades often changing and fading in the same cluster, from full pink to white. Unfortunately their hardihood is not to be depended on, and they can only be trusted as conservatory plants here, or to be budded and grown as standards in large pots. Beautiful varieties are *Grevillei*, or the Seven Sisters, *Laure Devoust*, *Rubra*, *Elegans*, and *Alba*, which will make a grateful return for whatever protection it may be thought fit to bestow upon them.

[To be continued.]

Floriculture, what is it?

ADMIRE one feature in the *Midland Florist*—every contributor is allowed to speak for himself. There is no garbling of a man's ideas, nor of his means of conveying them. "*The fool's bolt is soon shot*," and it is for the benefit of the science that he is allowed to shoot it. John Walker, of Winton, near Manchester, has discovered a mare's nest; but he can write a mistake as glibly as he can record a

fact; for instance, after the preliminary humbug about *my knowledge being confined to a smattering of the subject* (he perhaps fancies that I shall not condescend to notice it, for no man can better afford to be misrepresented than I can, because every florist, of any standing, would defend me), he says, and he well knows it is a falsehood, "The principal design of the writer *appears to be*, to make the floral world believe, that prior to 1832 every gardener and florist was devoid of common sense or taste." Now, there can be nothing more notorious to the floral world than the utter folly of a man who writes such rubbish; but he follows it up by saying, or rather writing, "and I, although only a humble devotee at the shrine of the goddess (he does not tell us what goddess), beg to offer a few remarks, to show that, at least, some parties knew what a flower was previous to that date." I will now, without admitting, for a moment, the justice of his accusation, or rather his interpretation of my writings, try him on his own evidence. "In the first place," he says, "*we will take the Auricula, and here we have no need to enter into detail, seeing that the greater part of the winning sorts of the present day were in cultivation long before that much-extolled wonder of 1832 appeared.*" Heaven knows how old the writer is, but we should fancy him a silly young man, humbugged by some knave. Why, the Duchess of Oldenburg, Cockup's Eclipse, Warris's Blucher, Metcalf's Lancashire Hero, Bearless's Superb, and others we could name, *which nobody would venture to show now*, were the winning flowers in pair after pair when I first exhibited Auriculas, and after the *Properties of Flowers* was published, no grower, of any pretension, ventured to show them, because, although admired by the old florists, nobody would exhibit them, while they could produce Page's Champion, Grimes's Privation, Colonel Taylor, Booth's Freedom, or others that came up to the *Properties*. The young florists saw plainly enough, in spite of the old ones trying to humbug them with their rubbish, that the Duchess of Oldenburg had no edge, Lancashire Hero no colour, Cockup's Eclipse all tube, and a pale one besides, the colour breaking through to the edge, that Warris's Blucher, and Bearless's Superb were starry, and that other favourites of the old school were tolerated merely because the old dealers had them in stock. But our would-be mentor must be reminded that my *Properties of Flowers* was published to show the floral world *which of the old ones ought to be discarded*, and which retained; not to condemn old things generally, but to show the floral world what was, or would be, perfection. But there never was a happier signature to such a tissue—"Walker." Suppose all the good ones had been raised before my *Properties of Flowers* had appeared, would that have justified this stupid man in saying that "my object was to make it appear that my predecessors were devoid of common sense?" Why, Fletcher's Ne plus ultra, Waterhouse's Conqueror of

Europe, Cheetham's Lancashire Hero, several of Lightbody's and Dickson's seedlings, all raised since, are no more in my favour than the previously-raised flowers were against me. My object was to show all new raisers that they ought to select according to my model, in preference to imitating the old noodles who saved according to the models *they had*, instead of trying to improve. But our self-elected monitor attempts to prove his case by saying, "The Polyanthus, too, has had very few additions that can displace the old sorts, since that date." For the best of all reasons. Every raiser knew that if he could not come nearer to the perfection than the old sorts, he need not put forth a novelty. There have been very few new ones, but they all beat the old ones, and, few as they were, they advanced the flower, which, but for the *Properties*, being distinctly pointed out, might have gone on multiplying in varieties, without being one jot better than the lot already in stock. He says, "Tulips, notwithstanding so much has been said and sung about new sorts, and the half or two-thirds of a hollow ball, many of those that were winning sorts prior to that date, are winning sorts still." What has this to do with the question? The *Properties of Flowers* did no more than show what a flower ought to be, to be perfect. If there had been a hundred first-rate things, exactly what the *Properties* pointed out, would that affect the standard laid down? The writer must be mad or stupid to find fault with a standard, because he thought some flowers had reached it; so much the better for the flower. It is true he mentions some old favourites that are better than the mass that were then shown, but they only approach the *Properties*, not come up to them, by any means. The idea of a man taking another to task on improving his motives or his intentions, and to betray his ignorance of the very book which annoys him, by quoting flowers that scarcely approach the standard it lays down, seems strange to men of the world. If I say a Tulip ought to be half or a third of a hollow ball, and he mentions winning flowers which are not so, to prove we are wrong, it is something like proving that a lame horse won a race, when it ought to have been sound. The plain fact for florists to consider is, would a long-cupped, narrow-petalled, pointed, foul-bottomed Tulip, winning a prize at such a show as "the National" (Heaven help the nation), prove that I am wrong, in requiring a pure ground, a thick petal, and a circular cup, as the standard of perfection? Ridiculous. Besides, when I insisted on a pure ground, and, indeed, till within a few years, Dolittle, and plenty of other foul Tulips that could be mentioned, were regularly winners, and the pure base was *not a disqualification*. The writer goes on to tell us of the wonderful progress made in Roses, Hollyhocks, Dahlias, Carnations, Picotees, Pinks, Pansies, and many other things, of late. Who denies it? They all knew what to strive for; they looked to the *Properties of Flowers*,

and saw what to aim at. Before this, they did not. A thing was only required to be *different* to what they already possessed, and it was forthwith sent out as novelty. It was the publication of that work that put amateurs and professional florists on the right road for improvement. There was nothing to guide them before. The Carnation was to be of a good form. What form? The Tulip was to be the shape of a cup. What cup? This was not the instruction to lead to improvement. He admits there have been wonderful improvements made of late, but how does he know they are improvements? Why, because he must know they approach my standard; none others are recognised as improvements. I pay very little attention to his gabble about railroads, photography, fine arts, chemistry, and manufacturing; they are all great facts, but he may as well try to take the merit from the engineer, the chemist, the inventor, who were instrumental in all this, as to rob us of the credit of the advance in floriculture. A poor thing like this writer, to pretend he has "a public duty to perform," is a character in broad farce. Why, the public would be ashamed of having such a man for their champion. It is said, "where ignorance is bliss, 'tis folly to be wise;" truly the writer must be happy. He would make it appear that Mr. Lawrence, Mr. Hogg, Mr. Goldham, and others, esteemed as good florists, were one party, and that I was another. The silly man ought to have been told, that before I ventured to publish the *Properties of Flowers*, I read my work, and discussed flower by flower, with Messrs. Goldham, Goepel, Strong, Smith, Jeffries, Lawrence, Groom, Widnal, Brewer, Girling, Hogarth, Rutley, Holmes, and others, not less celebrated, who met by scores for the purpose of discussing it, and who *approved my work*. The only opinions offered were, that I set people too hard a task. All these gentlemen fancied that I should never see the Fuchsia reflexed; the Tulip half or third of a hollow ball; the windmill-looking Phlox, the starry Cineraria, the five-winged Pansy and Geranium, and other odd shaped flowers *become circular*; but they never once disputed the originality of the dictum, nor the perfection of the forms, *if they could be realised*. So much for this Winton scribbler's notions of my doings, and, I repeat, what he calls the "monstrous absurdity," which, however monstrous in his view, no man can deny, that before the publication of my *Properties of Flowers* there was no standard, but, that raisers "named anything, good, bad, or indifferent, so long as it was anything new." He asks, "Or are we, in this advanced age of science, to be made to believe that continental growers and raisers were equally stupid?" I should be sorry to hear that any one abroad or at home was so stupid, but they were equally wrong with our English florists, and certainly *named everything novel, without regard to the quality*, because they had no standard. As to the *we*, in his questions, he reminds one of the fable, in

which the filth in the brook, washed down the stream with the fruit blown from the trees, is said to have bellowed out, "How *we* Apples swim!" Writing of other articles of mine, he says, "*We* have also an attack on the Rose growers and raisers. This is really too bad, to cast a stigma on General Jacqueminot. I must say that my wonder at the late barefaced recommendation of eighteen good Roses must cease, and consider his ideas as very meagre." I confess I cannot quite make out the meaning of this, but if he desires the truth of the character I gave that flower, he is something worse than demented, for he immediately afterwards admits the truth of all I said: "All Rose growers, or most of them," says the scribbler, "*know it is not a full flower, but a step in the right direction.*" Well, then, it is all I said of it. It is loose the instant it is open; it has a bad centre; it has not the fulness or doubleness of a good flower. The attempt of a man to uphold it proclaims him ignorant of the first principles of floriculture. A writer who can say that "one petal of General Jacqueminot is worth the whole stock of *some things*, root and branch, lock, stock, and barrel," elegant as it may be, means nothing, because *some things* are worthless. I often pity the conductor of a paper or periodical, who fancies that, in justice to his independence, there is a sort of obligation to insert an article full of ribbald nonsense. The writer in this case is held in sovereign contempt by a very large class of the readers. We have received scores of letters from people, calling attention to the disgusting nonsense that has been crammed into two valuable pages that might have been occupied by the contributors, who usually write common sense, and I am quite certain that two pages of what he calls "monstrous absurdity," would be far more acceptable than the rigmarole of one who appears to be a stranger to the English language, and to the common decencies of public writing. I shall feel greatly obliged to any one who will render the following into common English for me. Appearing to awaken from his dreamy fit, he says, "But, to my text. *The Science of Floriculture*, or horticulture either, consists in a competent knowledge of *it*, coupled with assiduous labour to *raise every known species of plant, fruit, or vegetable* that is useful for ornament, luxury, medicinal purposes, or the sustenance of man or the lower animals." Why, the blockhead who could write such stuff ought to be tarred and feathered. Floriculture consists in *nothing of the kind*. Floriculture has no more to do with plants for medicinal purposes, or the sustenance of man and the lower animals, than it has with making butter and cheese, or the feeding of pigs. Such silly interpretations of the Science of Floriculture is beneath the understanding of a parish schoolboy. But he goes further yet. "Floriculture, as a science, does not (in his opinion), consist in vituperation, in calumny, in petulant arrogance, or egotism, and," he adds, "what has the *Midland Florist* or its readers to do with any

man's jealous animosities and vindictiveness?" Very true; who but himself could have made such a discovery as this? But he must have a fling at "the cottagers and amateurs, who pretend to be florists, and depend for their plants from the gardener, at the hall, or the squire, and pay more for them, in some instances, in *brandy and brown stout*, than would have purchased a few first-rate things, from a respectable nurseryman or florist." Some half-starved dealer probably suggested this. It is a foolish slander upon the cottager, and an insult to the gardeners who endeavour to assist the humble grower. The best, however, is yet to come. This reviler of the cottager and gardener says, "Lastly, I do not see that the *Midland Florist* should be made a vehicle for any man's slander. It has reached a respectable position, and *I was one of its early contributors and subscribers.*" Now, whoever this John Walker may be, if there be such a person, I think we may congratulate the Editor of the *Midland Florist* that it has survived the infliction of such a writer, and progressed in spite of him. No man is mad enough to suppose he ever rendered, or could render a service; but, if ever a paper more than any other damaged the *Midland Florist*, the slanderous article I have noticed has done it. The writer starts with a falsehood; perhaps written in ignorance. He presumes to slander a man he never saw, but whose writings, reaching every quarter of the globe, are acknowledged by everybody to have vastly improved the taste in floriculture, at home and abroad. He impudently questions the propriety of heads, acknowledged to be good, by all classes, and attributes motives which enter no man's thoughts, but originate in his own little mind. He also betrays an ignorance of facts which thousands can confirm, and exhibits himself in his true colours. He envies what he cannot imitate. He boasts of an article he wrote in 1857; the only stupid article in the number—an appeal, as if the book was in danger, that disgusted, instead of doing good;—for, let any man of common sense turn back to the number and read it, and he will find a crying appeal, unworthy of the work, a jumble that would disgrace a begging-letter writer, neither sense nor English, and I confess that, at a floral meeting, in the metropolis, where the *Midland Florist* is a pet work, we heartily congratulated each other that the amateur, of January, 1857, and the scribbler who calls himself John Walker, are only one person. So much for Walker.

G. GLENNY.

Fulham, April 15, 1859.

As far as the pages of the MIDLAND FLORIST are concerned, this controversy must stop. We are quite willing to insert communications with regard to floriculture, and we think our readers will join with us in saying that these two articles must end the dispute.—[Ed. M. F.]

Insects among the Roses,

SUCH seems to be the general cry in the midland counties, and we are asked for a remedy. We cannot do better than give the opinion and the remedy of Mr. John Cranston, of Kings-acre, Hereford. He says:—"The Rose is attacked by many insects throughout the spring, summer, and autumn, but the most destructive are the green Rose grub (the larvæ of the Rose moths), the black headed grub, and the green aphid, each of which appears upon the plants, as soon as they show signs of vegetation. The large green grub is most destructive to the foliage, and the small black headed grub, to the young bloom buds and shoots. The only effectual way of getting rid of these pests is, to look over the plants daily, and pick them off. When not feeding, they are to be found enveloped amongst the leaves. To destroy the greenfly, I have found syringing with a weak decoction of tobacco and soft soap, the most economical and effectual remedy. Where a quantity of plants are to be done, take one pound of tobacco, and two pounds of soft soap, to these add six quarts of boiling water, and let the whole stand a day or two, until the soap is dissolved; then strain the liquor through a piece of coarse canvas, and add nine or ten gallons of water. With this diluted fluid syringe the plants infested, or otherwise, well moisten the whole of the leaves and shoots. If necessary, repeat this operation twice or three times, and also syringe occasionally with clear spring water. Fumigating with tobacco is a good and effectual way of destroying greenfly, but means must be devised to confine the smoke, otherwise it will be of little use. About the end of July and August, the antler Rose sawfly may be found devouring the foliage; this caterpillar may be seen, holding fast to the leaves, generally upon the under side, and, being of a green colour, is often unobserved, until it has destroyed most of the foliage of the plants. Here, too, again, hand-picking is the only effectual resource."

Cultivation of the Phlox.

THERE are few plants among the productions of the northern regions, and which have become naturalised to England, more deserving of our notice than the Phlox, which was introduced into this country, from North America, in the year 1731. The varieties usually adopted for garden purposes are best propagated by a division of the root, which should not be done into very small pieces, as, in this case, it renders the plants very weak. The best soil is good turfy loam, trenched, and rendered light by the incorporation of leaf mould, well decayed. A damp situation is undoubtedly the best, as they require an ample supply of moisture, and yet, if allowed to retain too much of this, they will not thrive. The best plan of planting them out is to place them in masses, in beds allotted to them, and if the bed be so situated as to allow of a walk all round, the highest varieties should be placed in the centre, the medium next, and the extreme dwarfs next. This arrangement, coupled with some regard as to the colours, will render a collection of Phloxes one of the handsomest features of our modern gardens. They require to be kept from heavy rains, during the winter, and to be supplied with abundance of water, in summer. It will not be necessary to give these supplies continually, the ground being well watered once; but great attention is necessary that too long a time be not allowed to elapse between each application. It can never be sufficiently impressed upon the mind of the amateur, that some of our choicest exotics are fatally injured by carelessness in this part of their treatment. The plant may be in the full vigour of its existence at night, having derived full benefit from the aqueous food, given to it, perhaps, the day before, but, from an extraordinary dryness of the atmosphere, now nearly exhausted, this same plant may be seen, on the following morning, with its leaves drooping, and gradually shrivelling up, while the flowers, that were in all their beauty, are shrunk and totally fallen. Of course, an

excess is equally injurious. I give these few remarks in consequence of several enquiries having been made, and I am sure that any amateur growing a small collection of those varieties, mentioned at page 139, will be highly delighted.

J. S.,

Birmingham.

The coming Exhibitions.

TULIP exhibitions, of a public character, are rather numerous, this season, and we think it may be interesting to a many of our Tulip-growing friends just to give a short notice of each. Of course the leviathan of the season is the NATIONAL TULIP EXHIBITION. This is to be held at Mr. Charles Turner's, the Royal Nursery, Slough, and comprises a schedule of fifty pounds. We think it is scarcely necessary to give the various items, as they are so well known through the schedules circulated. We are also informed that it is Mr. Turner's intention not to exhibit at all, so that his bed will be left untouched, which will, perhaps, be the most pleasing exhibition of the two, to some admirers.

NORTHERN COUNTIES TULIP SOCIETY.—We have no return from this society, but, from a private letter, we believe it will be an excellent exhibition. The date is fixed for June 2nd, and is open to all. We are sure that it will be carried out in the strictest integrity, as the names of W. Peacock, Esq., Mr. Samuel Barlow, of Stake Hill, and Mr. H. Travis, of Royton, will satisfy the most sceptical.

LEEDS AMATEUR TULIP SOCIETY, open to Yorkshire, Lancashire, and Cheshire. A silver cup will be given. The exhibition is fixed for Wednesday, June 1st. Flowers to be staged at eleven a.m. Judges to enter upon their duties at half-past eleven. It will, we believe, be held in the Church School-room, a well lighted place, in the pleasant village of Chapelton, two miles from

Leeds. Good judges will be secured, and purity must be the order of the day. The prizes for classes will certainly run four deep, and, if the funds will allow, six. Breeder pans of three flowers, one in each class; also pans of six, if the funds will admit. Entries close on the second of May. A good show is expected, as Tulips are looking well in those localities, and, we understand that many of the leading growers have entered.

ALL ENGLAND SHOW, CHESTERFIELD.—Owing to the severe frosts which have visited, most sharply, our Chesterfield friends, it has been thought desirable to abandon the show of Tulips, but they will still carry on the Pansy show, a schedule of which is already out. For the best twenty-four blooms, four prizes; twelve blooms, six prizes; and six blooms, five prizes. There is also a class for the best flower in each class. Besides these Tulip exhibitions, there is the usual one of Derby, May 24, and the one in connection with the Nottingham Horticultural Society, May 25.

GRAND NATIONAL ROSE SHOW.—We understand that the Rev. S. Reynolds Hole, and a committee of admirers of the Rose met together, in London, on April 13th, but we have no account of their proceedings.

GRAND NATIONAL DAHLIA SHOW.—This exhibition is to be held at Aston Hall, Birmingham, on the 20th and 21st of September. Mr. Turner and Mr. Keynes are the honorary secretaries.

The Auricula.

AT your request, Mr. Editor, I give a short descriptive list of all the Auriculas in my collection, and I believe these will be found to be extremely useful. The small lot of Auriculas sent by our correspondent, J. W. M., are utterly worthless—petals are all pointed, the colours are such in most cases to condemn them. A seedling, forwarded too by “a

subscriber," would, provided the standard were to be a square and the effort a produce—a square flower from a circular one—would be a decided success; but as this is not the case, we must pronounce it worthless. Mr. Glenny's ideas of the Auricula are these. "The object of the florist is, in all flowers, to produce those peculiarities which render the specimen most effective. The Auricula is a singular object: a flower of circles, and moreover one which derives its chief attraction from its peculiarity of surface, which resembles in its texture a butterfly's wing, and is easily damaged by handling. The only way in which a velvety or mealy surface can be seen to advantage is flat. The division of the flower into several belts or circles suggests wonders. A due proportion of each of these belts is necessary to form a contrast, which is always desirable when there is more than one colour, therefore are the following points all necessary for a perfect, and the nearer they are approached the better. The greatest blunder that can be found in an Auricula is, unfortunately, the most prevalent, starry divisions instead of perfectly circular lines. First. The pip should be round, large, smooth at the edges, without notch or serrature, and perfectly flat. Second. The centre or tube should not exceed one-fourth of the diameter of the pip. It should be of a fine yellow or lemon colour, perfectly round, well filled with the anthers or thrum, and the edge rise a trifle above the paste or eye. Third. The paste or eye should be perfectly round, smooth, and white, without crack or blemish, and form a band or circle not less than half the width of the tube all round it. Fourth. The ground colour should be dense, whole, and form a perfect circle next the eye, and, on the outer part, be purely broken into a feathering edge; the brighter, darker, or richer the colour, whichever it may be, the better the flower, but if it is paler at the edges of the petals (when they are parted into five), or have two colours or shades, it is a fatal defect. Fifth. The margin or outward edge should be a firm unchangeable green or grey, and about the same width as the ground colour, which must, in no part, go through to the edge. From the edge of

the paste to the outer edge of the flower should be as wide as from the centre of the tube to the outer edge of the paste. In other words: the proportion of the flower may be described by drawing four circles round a given point, at equal distances, the first circle forming the tube, the second the white eye, the third the ground colour, and the fourth the outer edge of the flower, and the nearer they approximate to this (except that the ground colour, and green and grey edge run into each other, in feathering points), the better the flower." If these two correspondents take up blooms from the plants sent, they will readily perceive that they are not anything approaching to this standard, which myself and every Auricula grower in the kingdom bears out, and, having given these points, it may not be unprofitable to follow the same writer, and see the properties of the plants. "First. The stem should be strong, round, upright, and elastic, well supporting itself, and four to seven inches in height. Second. The footstalks of the pips or flowers should be so proportioned, as to length and strength, that all the pips or flowers may have room to show themselves, and to form a close compact truss of flowers, not less than seven in number, without lapping over each other, and all alike in colour, size, and property. Third. The truss is improved if one or more leaves grow and stand up well behind the blooms, for it assists the truss, and adds much to the beauty of the blooms by coming a green background." I shall now, Mr. Editor, give you a few notes on, what I consider to be, the best varieties in cultivation.

SELFS.

Blue Bonnet (Clegg).—Colour purple. This is what I consider to be a rather coarse flower; the paste is however whiter than is found in the generality of Auriculas.

Blackbird (Spalding).—This is one of the best of the self classes, of a deep violet brown, large and circular petal, and is of a robust constitution. There are several other selfs, but these two are the only ones that are really worth having.

GREY EDGES.

Conqueror of Europe (Waterhouse).—Colour chesnut, and has a large pip, well rounded and flat. The edge is good, and the flowers constant, though, to my taste, it is too coarse, still it is one of those which is found in every good collection.

Superb (Headly).—This is very nearly the same variety as the last mentioned. Several writers say it is the same, but I think it will be found to be different. Unfortunately, my plant has never shown itself in its true character.

Lancashire, or *Lancashire Hero* (Cheetham).—Always reckoned to be the best green-edged Auricula grown. Colour nearly black, and the edge inclined to be green rather than grey.

Flora (Beeston).—Colour chesnut and purple, good eye, and will be found to be one of the best.

Ne plus ultra (Fletcher), is a good flower either for staging or exhibition. It is splendidly marked, but amateurs will find it delicate in constitution.

Mary Ann (Fletcher), is also a good flower. It has weak points, but will be found in almost every collection, and we have seen it first.

Richard Headly (Lightbody). I have seen this flower but not grown it. It is undoubtedly a fine sort, and I shall be glad if any amateur growing it will report.

Maria (Chapman).—Of a beautiful violet colour. This is not what may be termed a perfect flower, but still is worth having.

Alma (Lightbody).—Ground colour, dark chesnut, a good eye, but the petals are not of a good form.

Unique (Maclean).—A splendid thing, although, with me, but a poor grower.

Complete (Sykes).—This, too, is a splendid flower, and should be in every collection. Colour pure black, edge good, and petals rounded.

GREEN EDGES.

Duke of Wellington (Dickson).—Although there are some points in this flower which I do not like, still I am bound to say that it is a great favourite with us Londoners. It is easily grown. Colour violet purple, robust habit.

Colonel Taylor (Leigh).—Colour purple crimson. Perhaps one of the most famous of all Auriculas, although it has its faults.

Prince of Wales (Ashton).—Colour dark violet, paste and substance good, a good trusser, but not first-rate.

Apollo (Beeston).—A high-class flower, but of a thin petal; colour good violet.

Freedom (Booth).—One of the very best Auriculas. Colour black velvet, but it never was a good trusser.

Lady Blucher (Clegg).—Colour bluish purple. This flower is uncertain.

Prince Albert (Dickson).—Something like *Duke of Wellington*, but not so good.

Champion (Page).—Colour violet. A good flower.

WHITE EDGES.

True Briton (Hepworth).—Colour dark plum. A good flower.

Countess of Wilton (Cheetham).—Small and late-blooming, but may be caught sometimes. I have, this season, had several good blooms.

Robert Burns (Campbell).—Colour light violet. A very good flower when caught.

Earl Grosvenor (Lees).—Colour violet. Good but late.

In a future number, I will give you a short article on the culture of the *Anricula*. I am very sorry to say that there are now but few who cultivate this charming favourite.

A LONDON GROWER.

Seeds worth Planting.



R. EDITOR,—In giving you a list of seeds worth planting, I do so, selecting them from the numerous catalogues in circulation, and I think I have included everything worth having, Annuals, in many cases, being but weedy affairs. The colours, &c., are according to the lists for 1859.

HARDY ANNUALS.

Convolvulus major.—A climbing plant, of various colours, height, ten feet.

Convolvulus minor.—Dwarf, brilliant blue and white, height, ten inches.

Nemophila Insignis.—Bright blue dwarf, the best and one of the oldest annuals.

Larkspur.—Dwarf, double rocket; colour, various.

Coreopsis Tinctoria.—Elegant plant, yellow and brown, height, two feet. There are several other dwarf varieties, all good.

Sweet Pea.—A climber, four to five feet, colours various. The *Painted Lady* is perhaps the most showy.

Candytuft.—Red, purple, and white, all good; a showy and useful annual.

Collinsia bicolor.—Blue and white, height, six inches.

Mignonette.—Not anything to look at, but a splendid perfume.

Erysimum Peroffskianum.—Colour, golden orange; grows to about the height of nine inches.

Lupinus nanus.—Dwarf, bright blue, six inches.

Lupinus Hartwegii.—Another useful variety; colour, blue, height, two feet.

Campanula Loryii.—Colour, blue, very dwarf.

Olinthia Pulchella.—One of the loveliest little annuals grown; forms a nice pot mass.

HALF-HARDY ANNUALS.

Zinnia.—Of this there are many colours. A packet of mixed seed will generally bring about a dozen.

Ten-week Stock.—The best of these are the Sulphur, Ditto, Wallflower, leaved, Large Flowering, Tall Crimson, Brompton, Queen, and Emperor.

China Aster (Globe).—Quilled, Ranunculas, Pyramidal, Truffauts, Pæony-flowered, &c.

Acroclineum Roseum.—A beautiful flower for winter, being everlasting.

India Pink.—Colours various. Very great improvements have been made of late years.

Phlox Drummondii.—Very useful as a specimen plant in the greenhouse; does well out of doors too.

Balsams, *Coxcombs* and *Thunbergia* are good in a greenhouse, but I, for my own part, cannot succeed with them out of doors.

French Marigold is very good, makes an excellent bedder; colours, orange and yellow.

In addition to these, among Hardy Biennials and Perennials, the following deserve notice:—*Delphinium*, *Phlox*, *Pansy*, *Hollyhock*, *Antirrhinum*, *Polyanthus*, *Pink*, *Auricula*, *Digitalis*, *Columbine*, *Canterbury Bell*, *Lupinus Polyphyllus*, *Wallflower*, *Sweetwilliam*, *Daisy*, and *Veronica*.

Among Tender Biennials and Perennials, *Platycodon Chinense*, *Dahlia*, *Heliotrope*, *Mimulus*, *Gloxinia* (wants a stove), *Veronica Andersonii*, *Cineraria*, *Calceolaria*, *Verbena*, *Petunia*, *Primula Sinensis*, and *Geranium*.

The above seeds, I think, would be worthy of the trial of most amateur gardeners. It is a matter of great difficulty to select seeds from the catalogues, but I think that this small selection will be found of use to everyone, as it has been to

AN AMATEUR.

Our Miscellany.

THE following is a remarkable instance of a Pear tree living two years without putting forth a leaf. A young rider tree, of the sort called Poire Belgæ (?) a kind very much resembling the Beurre Rance, was planted early in January, 1857, against the south aspect of a twelve-feet high brick wall. Its roots were carefully mulched over with short

stable litter, and they were frequently supplied with water, during the warm summer months. The tree had been growing vigorously the previous year, supported apparently principally by two roots, which had penetrated into the ground, and had been cut rather too short in removal, leaving but a few small fibres round the collar of the plant. No perceptible attempt was made during that warm summer, to put forth a leaf, and it was removed, the following winter, to be replaced by another, the bark being still green. I had it planted against a wall, with an east aspect, where it remained through the second summer, in the same inactive state. A graft taken off it, on the 19th of June, last, is now putting forth vigorous buds, and a graft taken from it, last week, will, I feel confident, be attended with the same success. I had it replanted against the same wall, a short time since, and it has now more the appearance of swelling its buds and still growing than it has had for the two past seasons. Instances of plants living through one season and growing the second are not unfrequent, but I have never heard of one surviving a second year with a chance of growing.

J. W.

Gardeners' Chronicle.

Notes and Queries.



R. EDITOR,—Can you, or any of your Rose-growing friends oblige me with information about the blooming qualities of the Tea Rose, *Isabella Gray*? On the faith of the beautiful illustration, in Turner's *Florist*, I procured a small plant, last spring. I have paid it extra attention, and, in point of growth, it has done well, but, although it has made its spring growth, not a single flower bud has appeared. In habit, it much resembles *Cloth of Gold*—its reputed parent—and, if I may be allowed to guess as to its future management, I should recommend that it be budded on the *China Rose*, or a stock of that breed, when we may reasonably expect to obtain similar results as those of *Cloth of Gold*. This is a mere suggestion, but worthy of a trial.

In answer to a correspondent, in the last number of the *Midland Florist*, as to the best six Polyanthus:—Richard Cobden, Kingfisher, Lord Lincoln, Sir Charles Napier, Cheshire Favourite, and Alexander, are, in their best dress, first-rate. Mr. Thomson, of Morpeth, an enthusiastic amateur, and the raiser of Sir Charles Napier, Duke of Northumberland, and other fine seedlings, should not be lost sight of. Polyanthus growers are few and far between, in these degenerate days, but, to the true florist, the Polyanthus has attractions, only to be yielded to the Auriculas, which, again, is only rivalled by the refinement of the Picotee. In early spring, the Polyanthus, with its fine gilding, is, indeed, a welcome visitor, and only lacks more variety of colour, in the ground, to give it a much higher place than it now holds, as a florists' flower. Mr. Hammond, a first-rate grower, near Nottingham, wrote three articles, in the *Midland Florist*, some years ago, containing admirable lessons, as to their cultivation, and which are well worth perusal. Finally, I would only add, I know of no one, who has adopted the Polyanthus as a floral pet, who has ever given up its cultivation.—C. S., *Berwickshire*.

R. WYCHERLY.—The quantities of the composition, page 139, were inadvertently omitted:—Three pints of linseed oil, one ounce of sugar of lead, and four ounces of resin. We have several communications all speaking to the efficacy of this mixture.

Opinions of Flowers.



R. S. TRIGGS, *Islington*.—Your seedling self Auricula has the appearance of making a good addition to its class, having a good yellow tube, and nice thrum eye, fine and circular, rather small enough, a fine rose petal, lays flat, and a beautiful colour, being that of a dark velvety violet.—J. HEPWORTH, *Leyton, Essex*.

POLYANTHUS, Sir Charles Napier.—Mr. Thompson, *Morpeth*.—This is indeed a splendid variety. We can only say with Mr. Glenny, one of the most perfect in lacing, very fine, and, most likely, the best in cultivation.

Calendar of Operations.



ZALEAS.—Now is a good time for grafting, and the best mode is that called side grafting. Take young shoots, from two to three inches long, and, with a sharp knife, make a sloping cut of the scion; this cut must correspond with the one on the stock, tie them with worsted or thick cotton thread to the stock, place them in a close

frame, or in a stove, under hand-glasses, and give air in the morning, for an hour or so, to dry up damp. Put in cuttings of all good sorts, according to the demand.—E. CLEETON, *gardener to E. Holland, Esq., Dumbleton, near Evesham, Gloucestershire.*

CHRYSANTHEMUMS.—(Large Flowering Varieties, Grown on Single Stems, as Specimen Plants for Exhibition).—The plants may now be removed from their protection under glass, but it would be best to defer it for a few days, for, while the wind remains in the quarter it is, we may have more frosty nights, such as have constantly visited us for more than a week. I hope those readers who are interested in my directions, had their plants well secured from the attack of the severe frost of the morning of April 1st., the weather being exceedingly fine previous. The Chrysanthemum, in common with other plants, had commenced growing fast, but the frost of that night and the following have completely destroyed four or five inches of the leading shoots of those growing in the borders, in this neighbourhood. This may be accounted for by the soft wood being saturated with wet, from the fall of snow during the day. The above may afford us a practical lesson in regard to the application of water, by sprinkling the foliage at this critical season, showing that, in so doing, we should select the forenoon, as, by the evening, the plants would become dry, and less susceptible of injury from frost. In placing the plants out-of-doors, choose a sheltered spot for the first week or two, after which, remove them to a more exposed situation. Place a bit of slate, or any other material, under the pot, so as to prevent worms from entering the soil; be cautious, and use every means to guard against their admission, for they clog the drainage, destroying the purity of the earth in the pots. Proceed with potting into one size larger. If any plants have already filled their present pots with roots, be careful in handling them, for the young shoots are very brittle, and quickly snap, and every one now destroyed will cost much time and trouble, in endeavouring to fill up the vacancy, by training. In mixing your soil, for repotting, use a fourth rotten cow dung, or other decayed manure. Take care that your soil is nice and porous, by adding some sharp sand or grit.—R. OUBRIDGE, *Stamford-hill, Stoke Newington.*

DAHLIAS.—These should be planted out by the 15th; those from cuttings and those from roots. Lay traps for earwigs, and hunt them vigorously. Seedlings may be planted at the end of the month.—R. EDWARDS, *Nuthall.*

EPACRIS.—Put in cuttings of the young shoots when from two to three inches in length. Dress them as stated before. Take a pot, drain it well, fill up with sandy peat to within one and a half inch of the top, fill the remainder with clean silver sand, and give a good watering, to settle it. When drained of a little, insert the cuttings about one inch deep round the pot.

Place a bell-glass over them, and put them in a temperature of sixty degrees by night, and seventy by day. Shade from hot sun. Repot as directed in former calendars.—E. CLEETON, *Dumbleton, near Evesham, Gloucestershire.*

GREENHOUSE.—Towards the end of the month, many of the New Holland and other hard-wooded greenhouse plants, that have done blooming, may be removed to a sheltered situation, out-of-doors; very choice specimens, however, particularly small-growing ones, must not be brought out at present, but kept growing on in pits, giving a free exposure in fine weather, but keeping on the lights when rainy, and shading from hot sun. Prick off seed-vessels from Azaleas as they go out of bloom, and, if they require shifting, do it when they are making growth. Continue training out Pelargoniums, and give each plant as much room as possible. Apply clear liquid manure at least once a week, and keep up a thorough ventilation. A good supply of Fuchsias must now be shifted, and grown on quickly, for autumn decoration. Place some lumps of fibrous loam round the base of the flower stems of the varieties of *Lilium lancifolium*, and give them a dose of liquid manure occasionally. The first week in the month, get in cuttings of *Chrysanthemums*. The best plan is to take five or six cuttings, of each sort, and insert them round the edge of a three-inch pot, in light sandy soil, placing the pots in a frame, on a gentle heat, and keeping them properly shaded, until rooted.—*James Carter's Gardener's Vade Mecum.*

HEATHERY.—Now the days are getting long and warm, this department must not be overlooked, even for one half-day. Heaths do not require more labour than any other greenhouse plants, but they will not bear neglect. Give plenty of air, day and night. Shading is beneficial, on very hot sunny days, say from ten until three, and take it off immediately it becomes unnecessary. Repot young plants as often as they require it, and place them in a frame, raised on bricks, or on any other substitute, at the corners, a few inches apart, so as to give them a free ventilation. Look well for mildew, and apply the remedy recommended in former calendars.—E. CLEETON, *Dumbleton, near Evesham, Gloucestershire.*

KITCHEN GARDEN.—Considerable exertion will now be required to keep up with the work, which will increase every day. The hoe must be kept constantly at work, among all advancing crops; and as soon as they can be well handled, thin out the beds of Onions, Carrots, Parsnips, Parsley, Red Beet and Turnips, to the proper distances; afterwards, run a small hoe through the beds. Sow Scarlet Runners, the first week for the main crop, and the last week for succession. Make two more sowings of late Peas, this month, and see that they get plenty of water, if dry weather sets in. Sow also more Dwarf French Beans and Broad Beans, and a little of Carter's Matchless Cabbage. Keep up successional sowings of Spinach, Lettuce, Radish, and Salading, as before advised. Chicory is a very useful plant, for salads, in winter, and should

be sown this month, in drills, and thinned out to about six inches apart. Sow Green Curled, Mossy Green, and Batavian Endive the third week, for first crop. Kohl Rabi should be sown early this month; also large purple Cardoon, in trenches prepared the same as for Celery. Make another good sowing of Turnips, such as Stone, Orange-Jelly, and Polley's Nonsuch. Plant out the earliest Brussels Sprouts and Savoy Cabbage. All the Brassica tribe, to be grown tender and fine, should be planted in well-manured, deeply-trenched ground. Plant out more Cauliflowers and successions of Lettuce, also the earliest Celery, as soon as it is ready, and see that it is liberally watered. Prick up the soil between the rows of Potatoes with a steel digging fork, previous to earthing; it is far better than hoeing. Manure and trench up the ground intended for the main crops of Broccoli and Winter Greens.—*James Carter's Gardener's Vade Mecum.*

POMPONE CHRYSANTHEMUMS, during the last month, have made a satisfactory advance. The selected breaks of those that have been disbudded, will now require carefully pegging down with small hook pegs, which are readily made from twigs, or thin copper wire. The latter is far the best, it neither rusts nor rots, when strained straight it can be cut into any length required, and, with pliers, or the finger and thumb, a small hook may be turned at one end. The amateur grower should bear in mind, that strong-growing kinds require pegging cross-ways over the joints, instead of down from the joint, otherwise they are liable to splch off at the joint, not only with rough winds, or heavy rains, but also with rapid growth. Those plants that are still in cold frames must have out-door treatment, during the day, putting the covers on at night, the last thing, and removing them the first thing in the morning. Should the weather be favourable, in the second or third week, they may be plunged out, in some sheltered part of the garden. Attend to potting on, in whatever stage the plants may be, when the roots have fairly reached the sides of the pots, as this strengthens the growth, and success much depends on early growth.—*JAMES HOLLAND, gardener to R. W. Peake, Esq., Spring Grove, Isleworth.*

TULIPS are very early this season, and will now be getting in full bloom. If intended for exhibition, the bed should at once be covered with a net sufficiently fine to keep out bees. In addition to the net, the bed must be covered with calico or canvas, which may be kept on night and day. If seed is desired, impregnate with the best varieties of the same class. The Royal National Tulip Exhibition will be held, this year, in the Royal Nursery, Slough, on the 20th of May, and, considering the earliness of the season, the bloom will, in all probability, be at its best about that time. It will be doubly attractive this season, for, in addition to the show, visitors will have an opportunity of inspecting the extensive and valuable collection of Tulips grown by Mr. Turner, the proprietor.—*T. ALLESTREE, Draycott, near Derby.*



JUNE

Growing & Dressing of Dahlias.

SIR,—As I was the first to give anything like punctual directions for the cultivation of this flower, and as there is nothing new and good in any of the nurserymen's or other papers or treatises written since, I am quite prepared to dispute the propriety of whatever additions have been made to the simple understandable rules laid down by me, and collected into one treatise, published years after in the **GARDENER AND PRACTICAL FLORIST**, still, I believe, published by Groombridge, in three volumes. I protest, in the name of common sense and taste, against one feature, introduced by a few vulgar minded growers, who aim at size only, and pass unheeded the inevitable accompaniment, coarseness; and this on two grounds. First, the destruction of all symmetry and beauty in the plant as a garden ornament; and secondly, the deterioration of the bloom as a florist's flower; and I regret that too many societies select the very men who descend to the mutilation of the plant, to obtain size, as judges, to award prizes among competitors; the majority of whom will not sacrifice the beauty of their gardens, by making them skeletons, to throw all the strength into a few blooms, but who, on the contrary, paying due attention to the real properties of the Dahlia, prefer the compact symmetrical flower of four inches to the ragged mops that a very few dealers exhibit, and to which, when allowed, they prefer to give the prizes. To me, it is disgusting to go into a garden where the heavy pruning system is adopted, for the plant is no longer an orna-

ment, and as to the blooms, it is a rare thing to see a flower on the monster stands that would not have been far better if shown smaller, and this vulgar propensity will not be got rid of so long as coarse growers are appointed judges. It is no uncommon thing to find these gentlemen condemning a neat, compact, symmetrical variety, almost without a fault, because, in their language, "they will not bear growing," that is to say, they will not stand the unnatural excitement that makes them large, and, to a man of taste, ugly. It would be no bad law if societies were to limit the diameter to four-and-a-half inches for the back row, four inches for the second row, and three-and-a-half inches the front row; but this is merely a suggestion. There are many who think four inches large enough for anything, and there are scores of varieties that are perfect at that size, and are coarse when grown larger, and I appeal to every true florist whether he ever saw in a stand of monster blooms a single specimen which was not rougher in texture, more open in the face, and less symmetrical than the same variety, in stands of compact moderate-sized flowers? I last year grew something bordering on two hundred plants; they were supported by single stakes, from which, all the branches as they grew, were sustained by loops of bast matting; nothing was taken from them until they had attained a very considerable size, and then only those lateral shoots that happened to grow inwards. When the bloom buds appeared, and the terminal shoot made a start, I pinched it off so that the bloom buds were not hidden nor robbed by the growth beyond, and this I continued to the last; the consequence was that my plants were a mass of bloom, the growth spreading from the ground, and when in their finest state, there was not a discoloured leaf from the ground to the top, they showed neither sticks nor ties, and they measured five feet through. More than this, hundreds saw them, and can vouch that during the showing time I could have cut hundreds of flowers fit for any stand where true honest florists were to be the judges. As the flowers decayed, I cut them off (for I saved my seed from a small collection, planted far off, and selected for

the purpose), first, because their appearance is by no means ornamental, and secondly, because it strengthened the plant. I grew them in soil, by no means rich in itself, but about the spot where each plant was to be set, I put one spadeful of dung, from old hotbeds, rotted into mould, and forked it into the soil, about the space of eighteen inches across, and mixed it twelve or fifteen inches down. From the first week after they were planted, not one drop of water was given them but that which rained upon them. I would not begin a labour which would become endless, and, as I observed before, hundreds can bear witness of these facts; about five or six weeks after they were planted, they certainly flagged in the day, but they recovered at night, and, against the remonstrances of my neighbours, many of whom were good gardeners, I obstinately withheld water. "Let them go down after it," I said. I do not want to bring fibres up. The result was as I fully expected, and although I have always advocated drenching the whole ground once a fortnight in preference to individual watering daily, I fairly tried the experiment of total abstinence upon a small number several seasons; the last year was the first that I had carried it with my whole collection. My land is light. I should say all the ground about this neighbourhood is light, but there is two feet of it, and I have no doubt that, though well drained, it is moist at the bottom spit, for when they had once established themselves, they stood well through weeks of very hot weather. Upon the subject of dressing, you all know my sentiments, but the coarse growers have a "dodge" which cannot be too widely known, because ordinary observers would not discover it. We all know the fuss that was made when flowers were rejected for having their eyes cut out, and that has been generally followed up. Nothing could prevent discovery, if the judges suspected a flower, but the new dodge, the turnerising, as it was called at Newcastle, is this: instead of cutting out the centre of a hard eye, which could be found out by the black hole which was left, they remove a row or two of the petals and stamens round the centre, this makes room for the petals beyond

to fall over and hide the centre, and if such a flower be examined by merely removing the points, the solid centre is seen, as if the flower had never been touched. This is a sort of refinement upon roguery, and I quite annoyed a gentleman at Newcastle by the discovery of no less than seven flowers which had been "turnerised," and left small pieces of paper in the blooms so detected. Of course it was denied, and one of the flowers was shown to bystanders to prove that the centre was honest; but in consequence of a hint which I dropped, the flowers were cut open by one of the committee, after the show was closed, and the society saw I was right. Now it is this dirty trickery on the part of growers that drives gentlemen growers from the field, and appointing such persons as judges, when they know their own customers stand by the coarseness of the growth, as well as a dog knows its master. It is, however, no use to find out a grievance without suggesting a remedy, and for this we must fall back upon the stringent rules of the metropolitan society, and make the competitors declare, upon their honour, not only that the flowers they show are their own growth and property, but they are as they naturally grew, and have not been, during their growth nor afterwards, mutilated, nor deprived of anthers, florets, nor petals, nor undergone any treatment that tends to disguise the real properties of the flower. It may be said that a man who would be guilty of such a dirty fraud would not hesitate to declare falsely, but I would make the penalty, exclusion, on the ground of falsehood, and immediate publication of the fact; for a man thus denounced would not be allowed to enter or compete in any respectable society, and I would make in all societies a "rule absolute" that all flowers should be served, as they were at Newcastle, cut in half that it might be seen, before the delivery of the prize, whether they are honestly shown or otherwise. We should then be able to win back to the field, gentlemen who have long since retired in disgust, seeing that the same set of shuffling dealers manage, by their artful tricks, to win the best prizes, and push themselves forward, with their paltry subscriptions, to get up shows in different parts

of the country, and help themselves to the lion's share. I feel confident that if something be not done to secure these gentlemen, who will not condescend to trickery, a fair chance Dahlia showing, like those of the *Ranunculus*, *Auricula*, and *Polyanthus*, will very soon go down. Banish coarseness, employ honest judges, increase the number and diminish the value of the prizes, forbid mutilation and disguise, and Dahlia growing and showing will flourish more than ever.

G. GLENNY.

Fulham, April 15, 1859.

My Note Book.

"There is a lesson in each flower,
A story in each stream and bower,
On every herb on which you tread,
Are written words which, rightly read,
Will lead you from earth's fragrant sod
To hope, and holiness, and God."

A. CUNNINGHAM.

THE Hon. Mr. Herbert, in the *HORT TRANS* says:—
"I raised from the natural seed of one umbel of a highly-manured red Cowslip, a Primrose, a Cowslip, Oxlips of the usual and other colours, a black Polyanthus, a hose in hose Cowslip, and a natural Primrose, bearing its flowers on a Polyanthus stalk. I therefore consider these to be only local varieties, depending upon soil and situation." Linneaus also, in one of his works, considers the Primrose (*Primula vulgaris*), and the Oxlip (*P. elatior*), only as varieties of the Cowslip (*P. veris*).

The Heath tribe is said to be the largest genus of plants, all, except about a dozen, are from the Cape of Good Hope. It is a remarkable fact that none have been found wild in America, and, although in

autumn our mountain's sides and moors are completely enpurpled with Heath flowers, there are only five species natives of Britain.

"The field Daisy," says a well-known writer, "insignificant as it apparently is, exhibits, on examination, a world of wonders. Scores of minute blossoms compose its disc and border, each distinct, each useful, each delicately beautiful." The florets of the centre are yellow or orange coloured, while those of the ray are snow-white, tinged underneath with crimson. The following remark of Gedner is particularly applicable to this interesting little flower. "We ought not to overlook the minutest objects, but to examine them with a glass, for we shall then perceive how much art the Creator has bestowed upon them.

The number of plants supposed to exist is about forty-four thousand species, of which, thirty-eight thousand, have been described. Mr. Loudon, in his valuable encyclopedia of plants, has published a description of sixteen thousand seven hundred and twelve indigenous cultivated or exotic plants, which are now found, or have been introduced into this country. The native plants, exclusive of the Cryptogamæ, according to professor Henslow, amount to one thousand five hundred and one species, and one thousand six hundred and twenty-five varieties, of which ninety-eight are supposed to have been naturalised.

The bulbs of plants, almost in every respect, resemble buds, except in their being produced under-ground, and include the leaves and flowers, in miniature, which are to be expanded in the succeeding spring, by carefully cutting, in the early spring, through the concentric coats of a Tulip root, longitudinally, from the top to the base, and taking them off successively, the whole flower of the next season's Tulip, with its petals, pistil, and stamens may be seen by the naked eye. The flowers exist in other bulbs in the same manner as in the Hyacinth, but being less, are not so easily distinguished.

Tulip Books.

MR. EDITOR,—I often think what a deal of trouble it would save us all if some enterprising individual were to publish for us a Tulip book, or Tulip register. It was only last year I went to a friend, within the precincts of Devonshire, and I happened to want to purchase a bloom of a particular variety. I entered the nursery grounds, and found my friend engaged with a gentleman and when he was gone I said I wish you would let me have that bulb you offered me the other day? What was it called, says he? Lord Strathmore, I answered. Now, by some means, the wind and the sun together had made such a mess of his bed that really, for all I had spent some time the Wednesday previous in examining it, I could not for the life of me tell which it was, and therefore I said we must have recourse to the book. What was my surprise, Mr. Editor, when the man brought out some loose pieces of paper, on which were written the names of the Tulips, and this in lead pencil, being the only record the man had. This collection was not worth less than a hundred guineas, and yet he grudged the cost of one shilling and sixpence for a proper book, in which to enter his stock. Now, Mr. Editor, I would advise every person who grows Tulips to have a book wherein to enter them, and, in order to give some idea of the formation of such a book, I will just give the following remarks. The size of the book (of which I had six made, one for each year, and the last of which I am now using), is larger than the MIDLAND FLORIST, and contains, at the opening, an index, just the same as in a ledger; in this index is put where each variety may be found; but the more readily to convey this idea, I will give you the first page.

Albion	...	...	...	3	|	1,	3	|	7	1 Biz.	1
Alcon	...	...	...	...	...	...	2	|	4	4 Byb.	32
Abercrombie	2	|	2,	2	|	6,	19	|	2,	19	6
Arlette	...	...	...	...	...	7	|	1,	7	|	7
										1 Rose	20

Meaning that Albion is to be found in the third row, the first and seventh flower; Abercrombie the second row, second and sixth flower, and also in the nineteenth row, the second and sixth flower. Well, of course B contains all the flowers beginning with a B; the second column contains the class, while the number is the mark by which all the offsets of that particular sort are registered. Suppose, now, you were to have to find "Friend," and you have ten bulbs, it is extremely difficult to turn to every row, and pick each out singly; but if you turn to your index, you find it "Friend," 3 | 3, 3 | 5, 6 | 3, 6 | 5, 9 | 3, 9 | 5, 11 | 3, 11 | 5, &c. 3 byb., 22. Here you have it at once. You can compare one bloom of the same variety with another, and then see the various defects and beauties. Thus far for the alphabet or index. Well, then we come to page one. This is neatly printed, as follows:

FIRST ROW.

LEFT-HAND PAGE.		RIGHT-HAND PAGE.
NAME.	CLASS.	REMARKS.
1		BACK OF THE BOOK.
2		
3		
4		
5		
6.	-	
7		

The following shows the page when filled up:

TWENTY-THIRD ROW.

LEFT-HAND PAGE.		RIGHT-HAND PAGE.	
NAME.	CLASS.	REMARKS.	
1 Lord Derby	Byb.	BACK OF THE BOOK.	Good.
2 Abercrombie	Biz.		*Nicely marked.
3 Triomphe Royale...	Rose		*Fine strain.
4 Alcon	Byb.		Rather stained.
5 Triomphe Royale...	Rose		Not so good as 29 | 3
6 Abercrombie	Biz.		
7 Lord Derby	Byb.		Not equal to 29 | 1


Those marked * were exhibited.

Each page contains room for three rows, and each book, for I am not a very large grower, contains one hundred and forty-four rows, and costs me, printed, ruled, and bound, one shilling and sixpence. Surely this is not too expensive a method of keeping a correct register of all Tulips in bloom; still it is a fact that a great many really good growers only write the names of the varieties they grow, on pieces of paper. I think that everyone will agree with me, that it is one of the most useful things to be met with. I do not for a moment wish the readers of the MIDLAND FLORIST to think that this is any new plan of my own, but simply one picked up from somewhere, which, by experience, I have found extremely useful.

GEORGE WILSON.

[We have prepared, some time ago, a Tulip book, to hold one hundred and forty-four rows, neatly lettered, printed, and ruled, according to this plan, which we shall be happy to sell for one shilling and sixpence each. We do not do this for the sake of profit, and therefore have no hesitation in making the announcement. This Tulip book has been in use for several years, by first-class growers, to whom we can refer.]

My Flower Garden.

HE early Tulips suffered from the April frosts, and have not bloomed so fine as usual, nor have they lasted so long, but the late ones are coming forward for a good show about the 15th. Hyacinths have passed their prime; Wallflowers, and especially the double German, are very gay. I have, however, had several varieties, some of which, although called double, and charged at a high price, have proved single, not partially so, but all alike. The Iris pumela cœrulea, the only dwarf flower I know of that is sky blue, was, for some days, splendid, but all the flowers that were fully developed were cut off in one night, and since that there have been only partial blooms come out.

The white Arabes, which many people have adopted for edgings, have been in flower all the past month, and remain so at present. I am now driving the stakes down wherever Hollyhocks and Dahlias are to be planted, and I hope to put out the former the first week, and the latter the second, in May. I am very indifferent about the soil, because I fork in a spadeful of rotten dung at every place where a plant is to go, mixing it with the soil to the depth of a foot. If the ground be ever so poor, this will set the plants growing directly. In fastening the stakes on the ground, look well to their position; if intended to be in a row, adjust them properly, and drive them in hard enough. They ought to be four feet out of the ground, and deep enough in to secure firmness and resist wind. The *Clianthus Marshalli* and *Linum flavum* are excellent dwarf yellow flowers, blooming close to the ground. These both flower early in May. Stocks, wintered in pots, may be turned out rather further back. *Cinerarias*, in bloom, may be plunged on the borders or beds. The Pansy is already blooming, and is a lively tenant of the border, yielding a variety of bright colours. About the second week, I rob the greenhouse very much of those subjects that will do well out-of-doors. *Geraniums*, of all sorts, *Verbenas*, *Calceolarias*, will be set out, already blooming in their pots. As the early Tulips must come up before the month is out, and the Wallflowers, though gay at present, will be past bloom in a few days, a good opening will be made for all kinds of herbaceous plants, which may be put out from pots at any time. Pinks are rising for bloom; those persons who wish to show, must reduce the number of stems; by no means must there be more than two or three of the strongest left, and these should be carefully supported by sticks. My compost heap is ready for potting Carnations and Picotees, and they will be in the blooming pots the first week in May, and will do better than if they had been potted earlier, for I keep them all the winter in these small pots, with loam, from rotted turfs; no dung; consequently they are not excited. All that I have not room for in pots I plant in the open ground, in properly prepared soil, eighteen

inches apart in the rows, and two feet from row to row, that I may have room to go in among them and layer them. All the Pinks and Pansies that remain in store pots, I plant out, in beds and borders, early in May, in good rich soil, if in beds, nine inches apart. Nothing is worse for plants than crowding them. Ranunculuses are all well up, and want the surface of the bed stirred, and the bruised soil put close to their roots, and if there be two or three days of dry weather, water them, in the evening, after sunset, or when low down, and do not be content with slight sprinkling, but give them enough to reach below their roots. Keep the sun off your best Tulips, but let them have as much air as possible. Contrary to my expectation, we have had some very severe frosts, such as cleared off many blooming subjects. Scores of plants that will bear a hard freezing, and be none the worse, put forth flowers that cannot exist in even a cold wind, and I think, this spring, more suffered from wind than frost, particularly Rhododendrons, of the early hybrid kinds, such as Nobleanum, which comes so early that it rarely escapes. The spring may be said to be the most trying one we have had for many years; March was as mild as May in its best humour, and April has been more severe than February is generally, but we must not have things our own way always; too many of us, I fear, would be apt to forget ourselves. I cultivate Roses, in pots, as the prettiest of all subjects, to fill up vacancies, or even form beds or groups. I do not mean that I grow them as they are shown, with branches tortured, and staked, and tied in fifty places. I find plants able to sustain themselves in the open ground, and he is a poor gardener who cannot make them do so in pots. Although I have sown all my annuals these three weeks, I am not quite sure that those who sow in May will not be better off. I am writing in the last week of April, and at this moment my Tulips are lolling about on the ground; although they will come up again when they thaw, they will be none the better for it. People will now be so fearful of frost that they will hardly like to put out bedding stuff till late in the month.

THE ANONYMOUS ATTACK OF THE TRADE

For not Supporting the National.

DEAR SIR,—A writer in a periodical for May abuses “the trade” for not supporting the National Society. I would, for myself and a large body of amateurs, say, that the refusal to join that discreditable concern redounds much to their credit, and confirms what I have often said and written, “that the great body of the trade is honest and honourable, and that the few who called themselves the National Society were the exceptions.” I take upon myself all the responsibility of having written down both the society and the almanac which supported them. The writer in question thus notices my efforts. Perhaps some of your readers may think it a “lee.le” contradictory, and not very sound English; but I take it as an admission that I “did the state some service,” when I crushed that hydra of corruption. “A writer for the floral literature of the day, and a reliable authority as well, in many matters connected with floriculture, having varied knowledge, much valuable information at his command, and a large capacity for disseminating that information in a popular form, regarded by many as an accredited leader, whose dicta were, and are still, trustworthy and authoritative, and whose inditings gain admission to portions of our newspaper press, as well as to the columns of our widely extended and popular periodical literature; a man of native talent, undoubted tact and ingenuity, and having large resources, both real and imaginary; deified as a radical reformer of uncompromising honesty, on the one hand—denounced as a dissatisfied and destructive demagogue and leveller on the other; superficial in knowledge, and in the expression of judgment too frequently, because biassed by a most obstinate prejudice; frustrated in the perfection of schemes that sought to lay at the feet of his dictatorial decree, all opinions and criticisms on current

topics, in gardening matters;—this man saw in the National, an opportunity for the display of his inordinate self esteem, by launching against it the arrows of his mean spite and unremitting calumnies, losing sight of the broad and comprehensive objects it sought to attain, by the employment of all legitimate and open means, and seeing only the men that were at the helm of affairs—men from among whom he had long been disassociated by the vehemence and arrogance of his opinions; intolerant of others because desirous to constitute his own the absolute “imperium in imperio,” from which no appeal could be made; by gross personalities, by insidious attacks on personal character; by the most obvious misinterpretation of designs; by the imputation of motives; by imaginary and assumed insight into the honest intentions of persons of whom he had no individual knowledge, and whose accession to the National was, in his opinion, tantamount to an alliance with cunning, trickery, and fraud—did he seek, by contemptible means, to depreciate and damage the institution of which we write? His efforts were not altogether fruitless.” I rather puzzle myself when I attempt to guess whether this nameless writer is one who profited by the fraudulent system of certificates, so ably denounced in your Nottingham amateur society, as well as in the FLORIST, or a mere dupe, who, in admiring the professed objects, was blind to the character of the men at, what he calls, “the helm of affairs.” He is, at all events, ashamed of his name, and sculks under a signature which would do for any moral coward. I need not tell your readers that the instant I saw the prospectus and the names of the leaders, I made up my mind that a gigantic fraud upon the public was intended, and I determined to crush it. Talk of personalities, who would bandy compliments with a pickpocket? And if honourable men, after being warned of the character of the managers, choose to associate with them, they, honourable as they may have been considered, were not a jot better than the delinquents themselves. I would inform or remind my nameless accuser that I never sculked behind a sham signature. All I have said or

written in accusation or disparagement of a man or a society, has been said or written in my own name, or in my own work; for I despise a creature who sneaks under cover to assail an opponent—who tries to wound in the dark. But, to show how much I value his testimonial to my character, I insert it, that it may obtain a respectable circulation, and not be limited to the obscure corner for which he designed it. I have no doubt he has good reasons to be ashamed of his name, and I should not have noticed the article but that I look upon it as adopted by the editor, who is morally and legally answerable for the articles he publishes without the author's name. I am sorry, however, for his sake, that he should be driven to admit such windy trash to fill up his pages.

GEORGE GLENNY.

Roses.

[Continued from page 161.]



F FORTUNE'S YELLOW, the high-spirited traveller himself complains:—"In the first volume of the **JOURNAL OF THE HORTICULTURAL SOCIETY**, I noticed the discovery and introduction of a very beautiful yellow or salmon-coloured Rose. I had been much struck with the effects produced by it in the gardens of Northern China, where it was greatly prized, and I had no doubt that it would succeed equally well in this country. But from some cause—probably ignorance as to its habits, or the treatment required—my favourite Wang-Jan-Ve, as the Chinese call it, was cried down. It had been planted in situations where it was either starved or burnt up; and in return for such unkind treatment, the pretty exotic obstinately refused to produce any but poor miserable flowers. Then the learned in such matters pronounced it quite unworthy of a place in our gardens, amongst English Roses; and

I believe, in many instances, it was either allowed to die, or was dug up and thrown away. Five or six years had elapsed since the introduction of this fine climber, and it had never been seen in its proper garb. But the results in two places proved it to be a Rose nearly as rampant as the old Ayrshire, quite hardy, and covered from the middle of May with hundreds of large loose flowers, of every shade between a rich reddish buff and a full copper pink. The old standard plants, in the open ground, were one mass of bloom, the heads of each being more than four feet through. The successful cultivators would inform you that no great amount of skill was necessary in order to bring the Rose into this state. It is perfectly hardy, scrambling over old walls; but it requires a rich soil, and plenty of room to grow. The Chinese say that night-soil is one of the best manures to give it. Only fancy a wall, completely covered with many hundred flowers, of various hues,—yellowish, salmon, and bronze-like, and then say what Rose we have in the gardens of this country so striking; and how great would have been the pity if an introduction of this kind had been lost, through the blighting influence of such ignorance and prejudice as have been shown by the person to whose care it was first intrusted." It would thus appear that even Roses, at the commencement of a promising career, are subject to the ill-will of envious enemies, who try to put them down, and to keep them in the background. Useful, hardy, and vigorous Hybrid Climbing Roses, of unknown or uncertain origin, are Madame d'Arblay, or Wells's White, raised by Mr. Wells, of Redleaf, Tonbridge Wells, a blush Rose, which attains a gigantic growth in strong soils; the Garland, changing from pink to white, after expansion, also raised by Mr. Wells; and Sir John Sebright, raised by Mr. Rivers, from Italian seed, which produces an abundance of very fragrant flowers, in large clusters, of a light vivid crimson, nearly double. The brilliant hue of the blooms of the last is rare and valuable amongst Climbing Roses, as their prevailing hues are white and pale pink. To the above may be added

Astrolabe, with very double, compact, bright-rose flowers, and Watts's Climbing Provence, really a good flower, double, opening well, full pink, with the slightest tinge of purple, and richly and somewhat peculiarly scented. There are several very distinct species of exquisite Roses, from insular and continental Asia, which merit all attention as conservatory climbers, on trellises in large pots, or against a south wall, according to their degree of robustness; but they are none of them suited for wintering in the open garden. The White Chinese Anemone-flowered Rose (all that is simple and pure in bloom, and neat in foliage), is not sufficiently known to be appreciated. *R. microphylla*, or the small-leaved Rose, "a decided curiosity," according to Mr. Paul, bears most voluptuous rosy flowers, amidst delicate foliage; yet it is, like the cuckoo-bird, seldom seen, though often heard of. "The leaves are composed of numerous small leaflets, sometimes as many as fifteen ranging on the sides of the petiole; the branches are of a whitish brown, the outer bark often peeling off in autumn. They are almost destitute of prickles, but the broad sepals of the calyx are densely covered with them, owing to which, the flower-buds are as rough as a hedgehog. The *Microphylla* appears to delight in a warm sandy soil; it is more than rather tender, and requires a wall to insure the production of its flowers in full beauty. It requires very little pruning. No varieties have yet been raised to surpass the original." The original single *Rosa bracteata* was brought from China, by Lord Macartney, on his return from his embassy, and was, in consequence, named the Macartney Rose; this, though single, is showy, and very desirable for its Apricot-like perfume, its ivory petals, its late period of flowering, and its singular, shining, evergreen foliage. It is somewhat hardier than the preceding Asiatic Roses, but still should be indulged with a trellis against a south wall. *Maria Leonida* corresponds to the above with considerable exactness, except that its creamy-white flowers are double. In fact, it is THE Double Macartney; others have been raised, but they are not to be warmly recommended. Apropos of the

Macartney, Mr. Rivers says, "I think it not too much to anticipate that, ultimately, we shall not be satisfied unless ALL our Roses, even the Moss Roses, have evergreen foliage, brilliant and fragrant flowers, and the habit of blooming from June to November. This seems to be an extravagant anticipation, but perseverance in gardening will yet achieve wonders." The first Double Macartney raised from seed is totally worthless, its flowers constantly dropping off without opening; while Maria Leonida is now an established favourite. *R. berberifolia* Hardii is a most interesting Rose, raised from seed by M. Hardy, of the Luxembourg Gardens, from *R. involucrata*, a variety of *R. bracteata*, fertilised with that unique Rose, *R. berberifolia*, or the Single Yellow Persian Rose. This curious hybrid, like its Persian parent, has single bright-yellow flowers, with a dark eye, a deep chocolate spot at the bottom of each petal, much like *Cistus formosus*, and evergreen foliage. It is not quite hardy. It will probably be the parent of an entirely new group; and what can be imagined more interesting in Roses than varieties with double yellow flowers and evergreen leaves? Autumnal and Winter Roses may be divided into two grand battalions—the perfectly hardy and hard-wooded kinds, of stiff and moderate growth; and the free-growing, softer-wooded sorts, tenderer in various degrees, according to constitution, comprising the Noisettes, the Bourbons, the Chinese, the Tea-scented, and the Fairy or Laurencean Roses. Of the former, the Scotch Stanwell Perpetual has been mentioned. A first-rate flower is The Crimson Perpetual, or Rose du Roi, or Lee's Crimson Perpetual, perfect in form, full pink, finely scented. It requires cutting back freely every year, and highly-manured soil, as do all the autumnals. The reputed parent of this great beauty is the Portland, or Pœstan, or Four Seasons Rose, a bright semi-double fragrant flower, which deserves cultivation, as it will put forth welcome blooms in November. Hybrid Perpetuals are more in number than excellence. To open well, they must not be too double, and the petals must have a peculiar texture, otherwise they are glued together by the dews

and rain, and the blooms, instead of expanding, fall off in the shape of a mouldy ball. This is the great fault of *The Queen* (a fine flower) in the climate of England. *Madame Laffay* and *Prince Albert*, both crimson, are good. *Julie de Krudner* and *La Favorite* are delicate pink, fragrant, and pretty. *Celina Dubos*, nearly white, deserves favour, as a sporting branch from the *Crimson Perpetual*. The *Geant des Batailles*, deep bright crimson; *Comte Bobrinsky*, vivid scarlet; *Gloire de Rosomanes*, velvety crimson scarlet; *Comte de Montalivet*, violet and red; *Sir John Franklin*, *Gloire de la France*, *Baronne Hallez*, *Alexandrine Bachmeteff*, *Paul Duprez*, *Triomphe de Paris*, and *General Castellane*, all rich crimson; *Jules Margottin*, and *Lady Alice Peel*, cherry colour, are all admirable. The *Bourbon Roses*, derived from the original bright pink, semi-double *Ile de Bourbon*, are very persevering bloomers, with handsome foliage, of free growth mostly. The following will give satisfaction:—*Madame Desprez*, double, pink, globular, in clusters, with very vigorous growth, and of great hardihood,—a most useful Rose, either for a standard, a wall, or a pillar; *Souvenir de Malmaison*, a magnificent flesh-coloured vigorous Rose; *The Queen of the Bourbons*, delicate pinky buff, double, and very fragrant; *Paul Joseph*, rich dark crimson, a remarkable flower, of moderate growth, thriving best as a dwarf; *Acidalie*, white; *Menoux*, carmine; *Dupetit Thours* and *La Quintinie*, dark crimson. The *Noisette Roses*, whose original, the *Blush*, was raised from American seed, are named after the French nurseryman, to whom they owe their introduction. The *Blush* met at first with undue favour; in this country it opens badly, in damp weather, and is injured by severe winters, as are most of its progeny. They are free growers, bloom abundantly and late, but are mostly deficient in odour. Good varieties are:—*Aimee Vibert*, pure white, with glossy, light-green foliage; *Fellenberg*, semidouble, bright cherry; *Jaune Desprez*, fawn-coloured or salmon-pink, very rampant in growth, should have its spring shoots stopped when about two feet long, very fragrant, rather tender, safest against a wall. *La Biche*, large and white;

Lamarque, pale straw colour; Cloth of Gold, or Chromatella, creamy white, with yellow centre; Sir Walter Scott, rosy lilac; Solfaterre, creamy white, with a bright sulphur centre; besides others, as Octavie, Ophirie, Cerise, and Vicomtesse d'Avesne. Many of the latest-flowering Noisettes are loose in their blooms, which is a merit in them, as they open with less difficulty. Inexperienced gardeners are apt to prune their Noisettes, and other vigorous-growing Roses, too freely; if cut back too severely, they will produce foliage instead of flowers, year after year. Instances of the effects of such ill-treatment may be seen in the suburban villas that surround large cities, where people get ignorant jobbing gardeners to prune their Roses by the year, the result being a collection of verdant standards, with flowers to be hoped for when the good time comes.

Management of the Flower Garden.

THE fine weather to be expected now, renders necessary the utmost expedition in completing all floral arrangements. The rapid growth of grass lawns, and of those tests of a gardener's temper, weeds—the demands made by plants, in pots, lest they should become root-bound—and all the other services rendered imperative by a hot sun and a drying wind—all these things are now tasking our energies to the utmost, and will probably make many amateurs almost weary of their responsibilities. But “never give up,” must be our motto; the preliminary work of spring will soon be completed, and everything being established in its place, you will have time to look on and enjoy the result of your labours. Plants recently transplanted will flag, and your lawn will persist in decorating itself with Daisies and Buttercups; but these tiresome whims exhibited by nature in the exuberance of her youth, will soon be changed for a sober stability. As a general

rule, wait for a shower of rain before you transplant anything. I know how eager the amateur is to get everything out of hand, but too much haste in this will often throw his productions out of existence. Imagine, for example, the irritation which those must suffer who transplant annuals, &c., in dry weather, and then, for a week or ten days, find the sun brilliant, and the heat intense, accompanied by a drying wind. Without shading, few things could withstand such a combination of disadvantages. Bide your time, then, and having retarded your annuals and other productions, not in pots, as much as possible, avail yourself of the first shower to place them out. As it regards time and trouble, I had rather pot a thousand plants, and keep them in a frame till established enough to stand all weathers, than transplant them in the ordinary way, unless a rainy day could be secured. Where ornamental trees and shrubs have been planted this season, let them be watched with an anxious eye, lest heat and drought should destroy them. These enemies are often very insidious in their attacks, and do not develop their effects until it is too late to counteract them. Water well, and place around the stem, on the surface of the soil, some mown grass or other material, to prevent evaporation. On the other hand, do not be too free with the watering-pot, in the case of transplanted productions, and always see that the soil is kept loose, for if the water, on being applied, runs off like rain from a smooth surface, you may be sure harm is being done by the operation. Water must be freely absorbed, to do good.

Hollyhocks, and similar herbaceous plants which throw up many stems, must be thinned, if not done before, if fine flowers are wanted. Do this at once. Hollyhocks raised from seed are amazingly rampant in their growth, and should now be unsparingly pruned. Three stems are as many as can be made to grow well, for more cannot well be tied to a stake. By the way, put your stakes and supports to everything in good time. The forgetfulness of this rule is a capital offence, in good gardening. If you do not begin to tie up until the plants are prostrated, you seldom secure an elegant growth.

BURGESS'S AMATEUR GARDENER.

The Grand National Rose Show.

WHAT a many times during the past month has the question been asked,—Are we to have another National Rose Show? Some said yes, while others, desponding, though perhaps really good hearted florists, thought that they could not raise one every year. However, we are happy to inform our readers that there will be another exhibition of this popular flower, during the ensuing month, in accordance with the following proclamation:—

A PROCLAMATION!

Be it known to all men, that by virtue of my authority, as Queen of the realms, I shall, pursuant to this proclamation, at my palace, Hanover-square, in the city of London, on the 23rd day of June next instant, proceed (by adjournment from St. James's), to hold my court, when I command that all those nobles and princes of this my kingdom, as well as those foreigners who at present are resident in these realms, do attend in person, to be duly presented. And I further declare that it is my intention to distribute among such of my subjects as shall then be present, such rewards of merit as I shall think them entitled.

Given under my seal, at the various courts in Great Britain and Ireland,

GOD SAVE THE QUEEN (OF ROSES).

So far, so good. Here we have the official proclamation. We exhort all our readers, as loving subjects, to pay their tribute to the lawful sovereign, who will, in return, be able to distribute so much larger an amount of gifts among the deserving heroes. But, to put aside this loyal strain and proclamation, the invention of our press, of printing ink, we would cordially invite the attention of our readers to the fact that it is proposed to hold an exhibition of this queen of flowers. The great interest excited, and admirable management

are both fresh to the minds of every lover of the Rose. It must have been a moment of triumph when the Rev. S. R. Hole, of Caunton, saw the last exhibition, and we are sure that his labours, diligent and arduous as they were, were highly appreciated by the public. We remember a little incident of an old friend of ours, who was very anxious to have Mr. Hole pointed out to him, or, as he said, "I want to see the founder of the feast," and seemed almost as much delighted to see Mr. Hole among the flowers as to see the flowers themselves. We only hope that Mr. Hole will again be among the flowers, and that the founder of the feast will have the pleasure of laying before us as rich a repast. The old friend has since that Rose meeting been gathered to his fathers, but for all that there are others quite as enthusiastic as he was. We firmly hope that we shall see it supported in a liberal manner. Remember, readers, it is our national flower, and contribute your trifle; the poor man's shilling is as greatly esteemed as the rich man's pound. The exhibition will be conducted as before, but with some alterations in the schedule, and improvements in arrangement, suggested by experience. There is a goodly list of titled patronage, and a brilliant gathering of both flowers and spectators are fully anticipated.

Clearing up for Summer.

THE advance of the season now reminds us that preparations for the beauty of the flower-garden must cease, and everything necessary to produce effect must be in its final resting-place. Go round your grounds, and see what vacant spots require filling, and what over-planted beds will bear thinning out. What is not sown nor planted now must be left till another year, since every foot of ground should be in the process of becoming occupied by productions far advanced. If you have neglected to get a proper stock

of plants ready, regrets will be vain, and you can only profit by your present disappointment by forming good resolutions for the time to come. But every garden will now be much improved by a general clearing up, if that necessary operation has not yet been attended to. The spring flowers are over, and have left their unsightly and decaying litter behind them, which should be at once removed. And first, in reference to bulbous plants which have done flowering, you may now take them up, and dry and stow them away, for planting in autumn, or you may cut off the tops, and leave the bulbs in the ground. My plan is to take up Crocuses, Tulips, and Hyacinths once in two years, unless I have some scarce sorts which require special care. If you resolve to leave them in the ground, guard against any impatient or premature assault on the foliage, which, although destitute of flowers, and denuded of all beauty, is yet performing a very important part in the economy of the plant in anticipation of next year. Some persons pull up the leaves of Crocuses, &c., as soon as they begin to look littery, to the great prejudice of the bulbs, which can only become fully developed by allowing the foliage to continue until no vital functions can be performed by it. When the leaves are turning brown, and are partly withered, you may cut them off close to the ground, rake your beds, and plant what you intend to remain for the summer. I once saw in a garden a mode of treating the foliage of Crocuses, which, to me, was original. The leaves were brought together, and tied in a knot, presenting the appearance of a lady's hair in papers; a most ridiculous practice, since the leaves can be of little benefit to the roots, when twisted together in this rope-like fashion.

Herbaceous plants, which flower early, and have acquired a vigorous and out-spreading growth, may be brought into reasonable proportions, either by pulling up some of the stems, or cutting away a portion with the knife or shears. The beds should then be raked over, and if you think they require it, and have a stock by you, a little leaf-mould may be raked in with the old

soil. Stake and tie up everything in the form you wish it finally to assume. Go over your Rose trees, now coming into bloom, and prop up the branches which threaten to trail upon the ground. Short-forked stakes, taken from faggots of brushwood, accomplish this purpose better than anything else. Verbenas and other creeping plants must be fastened to the surface by wooden pegs, in the directions you wish them to take. In short, look well at everything—stopping one, training another, and regarding the future condition of all. Every amateur of any experience knows how much the beauty of the garden henceforth depends on a little time and care wisely expended now. Let neatness everywhere prevail, and let no weed get into the rough leaf.

BURGESS'S AMATEUR GARDENER.

Budding.

A CORRESPONDENT asks a rather unusual question,—What are the uses of budding? We cannot answer this query better than by the remark of the late Mr. J. C. Loudon:—"The uses of budding, in addition to those of the other modes of grafting, are, to propagate some kinds with which the other modes of grafting are not so successful, as, for example, the Rose. To perform the operation of grafting with greater rapidity than with detached scions, or inarching, as in the case of most fruit-trees; to unite early vegetating trees with late vegetating ones, as the Apricot with the Plum, they being both in the same state of vegetation, during the budding season; to graft, without the risk of injuring the stock in case of want of success, as in side-budding, and in flute-budding without heading down; to introduce a number of species or varieties on the same stem, which could not be done by any other mode of grafting without disfiguring the stock, in the event of the want of success; to prove

the blossoms or fruits of any tree, in which case blossom-buds are chosen instead of leaf-buds; and, finally, as the easiest mode of distributing a great many kinds on the branches of a tree, as in the case of Roses, Camellias, and fruit-trees.

In performing the operation, mild, cloudy weather should be chosen, because during hot, dry, windy weather, the viscous surfaces exposed to the air are speedily dried by evaporation, by which the healing process is retarded; besides, the bark never rises so well in very dry, windy weather as it does in weather, which is still, warm, and cloudy, but without rain. The first step is to ascertain that the bark of the scion and that of the stock will separate freely from the wood beneath them; then procure the cutting from which the shields or tubes of bark are to be taken. If the budding is to be performed in spring, the cuttings from which the buds are to be taken, should be cut from the tree the preceding autumn, and kept through the winter, by burying their lower ends in the ground, in a cool, shady situation, as in the case of grafting, by detached scions. When these cuttings are to be used, their lower ends should be placed in water, to keep them fresh, while the operation of cutting shields or rings from them is going on. If, on the other hand, the budding is to be performed in summer, which is almost always the case in Britain, then the cutting from which the buds are to be taken is not cut off the parent tree till just before the operation is to be performed. The cutting should be a shoot of the current year's wood, which has done growing, or nearly so, and its leaves should be cut off, to prevent the waste of sap, by evaporation, as soon as it is taken from the tree; the end of the cutting should then be put in water, to keep it fresh, and the buds taken off as wanted. When the leaves are cut off, care should be taken to leave part of the petiole of each, to handle the shield or ring by, when putting it on the stock. A slit is next made in the stock, or a ring of bark taken off, and the shield or ring from the cutting, containing a bud or buds which are ripe or nearly so, is introduced. Tying the bud on the stock completes the operation."

Why are the edges of Tulips rough?

SUCH is the question of a correspondent who signs herself a tyro at Tulip growing, and although we, in some of our opinions, do not agree with other cultivators, still we shall be glad if anyone else will give us their ideas as to what is the reason. In the first place, the great and only cause to which we can attribute this is, the absence of protection. A tyro at Tulip growing, by her own confession, is no advocate for covering, for in her complaint she says, "I never cover at all, until the blooming buds are completely developed, and when the colour is beginning to exhibit itself." Now we are of just an opposite opinion. If we were placed in the position of our fair correspondent (for by the writing we judge her to be one of the gentler sex), we should cover over and keep off the rain until the bloom buds were fairly developed. We are quite aware that this is rather contrary to general opinion, for it would be a query with some as to how the roots would derive nourishment. We would, however, remind them of the fact that the nourishment is simply derived from the earth, by the extreme ends of the roots, these, in some instances under our own observation, exceeded twelve inches in length. Now it must follow that the moisture, falling on the outside of a bed, will undoubtedly be found to penetrate into the bed a certain distance under the surface, and therefore the fact that rain is necessary for the growth of Tulips is a fallacy. The edges of a Tulip, if exposed even when very small and quite down in the heart of a bulb, will, in all probability suffer, and this will at once cause a roughness or serrature of the edge, while if the frost or even cold winds is allowed to act on the bloom buds, they will, in nine cases out of ten, have the same effect. We would particularly have our readers to understand that we do not mean by covering, to exclude air; by no means. Give all the air you can, but protect from wet, wind, and frost. It is not natural for Tulips to come with a serrated edge. No such thing. We have ourselves

adopted a plan, laid down a great many years ago by Mr. Glenny, of close covering, and we assure our readers that we can get Tulips with perfectly smooth edges. Look at the shows for a perfectly smooth edge, and how seldom does it occur that, in the winning pans, you can find a single flower without serrated edges. The growers are sadly negligent on this point, and it is a fault of their own, for we maintain that is just as easy, with proper management, to have smooth edges as rough. We do advocate, however, that when the flower buds are fairly out of the foliage, gentle showers be allowed to fall on the bed, but not till then. Frost and wet are the causes of all this roughness. I have tried, this year, six bulbs each of Polyphemus, Maid of Orleans, and Captain White; three of each of these were planted in the open air, without the least protection, while the remaining three were planted under a calico awning, and were not allowed a drop of rain. The result has been that the three non-protectionists were, in every case, rough on the edge, and the colour unevenly distributed, while the three protectionists were nicely coloured, and, in several cases, were free from the slightest serrature. Singularly enough, however, and it is a fact perhaps worth attention, the nine protectionists were all a trifle smaller sized blooms than the nine non-protectionists. Of course, I am aware that this system of protection will meet with some opposition, and I hope that Mr. Allestree, of Draycott, the Rev. S. Creswell, of Radford, Mr. Hepworth, of Lea Bridge-road, and other growers, all of whom are friends of the MIDLAND FLORIST, will kindly favour us with their opinions. Mr. Glenny would perhaps add his ideas upon the matter. The subject is one which may be ventilated with great benefit to the Tulip growers, for one of the greatest eyesores to me at every Tulip show is this roughness. Our friend asks us to give her the best way of planting Tulips. There are two good ways, both of which I adopt, but really as Mr. Allestree has kindly began to give us papers, I must leave him to finish. The last question is, "What is the Vicar of Radford? Is it a fine strain of Anas-

tasia, or not?" We shall leave these two questions, having simply to treat of the roughness of the edge, and hope some other Tulip grower will answer them. I should have been happy, Mr. Editor, to have given my real name, but being simply a gentleman's gardener, and still a fond lover of the Tulip as well as of the MIDLAND FLORIST, I will simply subscribe myself

JOHN THE GARDENER.

Achimenes.

[FROM THE COTTAGE GARDENER.]

TO have these early and in succession, introduce a few at different times into a moist heat, from January to the end of May. For the last crop, the little scaly tubers should be kept after March in a cool place, free from frost, or they will spring and exhaust themselves before potting. Many admirers of these sweet little things have no means of exciting them early, and yet look to them to help to make their house gay in the autumn months, when Geraniums, &c., are past their best. May will be quite time enough for them to pot their tubers. Supposing they have been kept dry, and in a cool study, safe from frost, they will be starting of their own accord, whether they have been kept in sand, or in the pots in which they last grew. Shake the tubers clean of all earthly matter, without breaking them, which is very easily done. Prepare some sweet well-aired soil, neither wet nor dry, consisting of about equal portions of fibry loam, peat, sand, leaf mould, or very old decayed cow-dung, that has been sweetened and dried by exposure. Pans, three to four inches deep, would grow them well, if drained properly. Pots will also do well enough; and, in this case, the strongest tubers should be placed in the centre, so that when covered, the soil will be from one to two inches from the surface. This provides room for one or two surfacings of rich top dressings, which

greatly assist the plants, and cause them to keep healthy and bloom longer. For a six-inch pot, from six to twelve roots will be enough, according to the strength of the variety. Larger pots will require more. To ensure symmetry in outline, it is best to start the tubers thickly at first, and when two or three inches high, separate them and place them in their blooming-pots, as you can then place your strongest shoots and roots in the centre. For encouraging them at first in a common greenhouse, the pots or pans may be placed in a shaded hand-light, and kept close, or a little box may stand in one corner, covered with a large square of glass, or a piece of glazed calico. These means will keep the pots warmer and moister than the general air and temperature of the house. A single light shut off, in a cold pit, will answer the same purpose. After the plants are up and growing freely, the chief things will be giving plenty of moisture and air, with shade, at first, in bright sunshine, and so regulating air and shade, that the powerful rays of the sun never strike the plants until the foliage has previously become dry, or there will be danger of sun printing. After commencing to grow freely, the plants may safely be treated as if they were half aquatics. When the plants show signs of fading, then curtail water, and ultimately let them get quite dry in the sun, which will mature fine tubers for next season.

R. FISH.

Our Miscellany.

NATIONAL CARNATION AND PICOTEE SOCIETY.
—We would call the attention of our readers to the advertisement of this society, and urge the importance of every lover of these flowers to communicate with the secretaries, and intimate that they will become subscribers. It is to be hoped that this national show will not be allowed to flag for want of funds. The day first fixed was August 3rd, but in

consequence of the Midland Railway Company not being able to afford the accommodation necessary, the exhibition will be held either the Wednesday before or the Wednesday after that date. The fact of its being held in a midland town, will, we hope, insure the support of the midland florists, and we anticipate seeing a large gathering. We should say the Wednesday previous.

PRESENTATION.—On the 18th of April a party of forty friends and subscribers, cottage gardeners, of Holbeck and vicinity, met at the house of Mr. William Chadwick, the "Volunteer" Inn, Holbeck, to present Mr. George Wood, of Beeston, a cottager, with a handsome silver medal, for his successful growing and exhibiting the Dahlia, in 1858, at Holbeck, Beeston, and Morley.

PLANTS IN FLOWER IN THE GREENHOUSE (May).—Azaleas, all the family of Indica; Acacias, a great variety; Hoveas, several sorts; Cinerarias, a host of colours; Cacti and Epiphyllia; *Salvia fulgens*; *Abutilon venosum*, and *Pictum grandiflorum*; *Abrothamnus*, several varieties; Heaths, several; Geraniums, in abundance; *Deutzia Gracilis*.

Notes and Queries.

SIR,—I have now been a reader of the *Midland Florist* for about eighteen months, and in that time have derived both pleasure and profit from its perusal. When I tell you that I have simply a small cottage garden, without a foot of glass, you will readily understand that I take great delight in, and derive most benefit from, articles bearing on the culture of such hardy fruits and flowers as require only open-air culture. I was much pleased, more than twelve months since, with an article on the culture of the Raspberry, though, I confess I could not understand the *rationale* of watering with liquid manure, in winter, when the sap is stagnant, or nearly so. But this article on the Raspberry is nearly the only one of the kind I have seen in the *Midland Florist*, and I therefore think that a series of articles on the culture of hardy fruits generally would be very acceptable to a large number of your readers, especially to those who, like myself, have only a limited acquaintance with our little friend. The different methods of training wall, espalier, and standard fruit trees, illustrated by good woodcuts, would, I think, too, form an appropriate appendix or companion to the above. I merely,

however, throw out the above as suggestions. My main object in writing is to ask a trio of questions, for my own guidance and information. First. Whether is the winter or summer watering of the Raspberry most beneficial, and why? Second. In budding Roses, ought the shoots to be at once headed down to four or five eyes above the inserted bud, so as to excite the latter to growth the same season? or ought they to be allowed to grow on unchecked till pruning time (the inserted bud remaining dormant), then headed back, at first to four or five eyes, and afterwards, when the bud has well started, to one only, and finally cut off close? Which of these two methods would best promote the future health of the Rose, the loss of a season being a mere matter of indifference? Third. In the case of the Potato. What are the advantages of planting in autumn instead of spring? It may be an advantage to the gardener, by giving him more time for other spring work, but I really cannot see that it would benefit the Potato in the least. Perhaps some of your readers can enlighten me on the point.

—RUSTICUS.—As our correspondent asks whether is the winter or the summer watering of the Raspberry most beneficial, and why, he assumes that it is necessary. We have never watered a Raspberry in our lives, after once planting out. The same party asks:—In budding Roses, ought the shoots to be at once headed down to four or five eyes above the inserted bud, so as to excite the latter to growth, the same season? or ought they to be allowed to grow on unchecked till pruning time (the inserted bud remaining dormant), then headed back, at first to four or five eyes, and afterwards, when the bud has well started, to one only, and finally cut off close, &c.? Now, as this correspondent could turn back and find as good a treatise on the culture of the Rose, as he will find in print, it is hardly fair that the readers should be troubled by answers already anticipated in good sound articles (page 195, 1857). Stocks ought to be trimmed before budding; so long as there is one growing point beyond the eye, it is enough. If the budded branch is not too long, the end one may be left, but if in the way, it is cut back to a convenient length, and the side shoot nearest the end is sufficient to draw the sap; the rest are cut back. Nobody troubles his head about the bud so that it unites. In a large number, there will be many starting and many dormant buds, but where the bud has fairly united, the stock may be all cut close. The third question is, what are the advantages of planting Potatoes in autumn instead of spring? First. The tubers have not begun to grow, and their very first effort is sustained by the soil; whereas they have often begun to grow without anything to support them, before the spring, especially the early sorts. Secondly. They come ready for table earlier, and that is a great object with most people, who begin to eat them small, and continue till they are ripe. Thirdly. They certainly yield a fuller crop, and lastly, they are not so liable to disease as those which have started in their winter storing.

for every morsel of growth without the soil to help it exhausts the strength which should sustain it against the enemy. Nor can it be urged that it occupies the ground, because the surface may be cropped in many ways, with Radishes, for instance, which may be all off before the Potatoes want the space, and with Spinach, between rows, for it is off before the under crop requires the room.

The articles on kitchen garden shall be continued.

A north-west subscriber asks our opinion of Haythorn's net, as advertised. We do not generally give opinions, but we can say that it is the cheapest and the best covering for Tulip beds, flowers, and fruit. We know of some pieces which have lasted six years, and this four feet wide—would cost ten shillings for twenty yards. It is, in our opinion, one of the requisites of a Tulip grower, and, although too late for this season, we would advise everyone to get ready a piece for the next, as a covering for Tulips.

Having observed that several queries have been lately made in your interesting and valuable periodical, of that very beautiful but scarce plant, the stage Polyanthus, I beg leave to send you my list of plants, all of which I can confidently recommend as being good, and what is of more importance, will be found less troublesome to keep in health than Lord Lincoln, &c. With the exception of two, they have all been raised by that enthusiastic grower, Mr. Thompson, of Morpeth. Thompson's Supreme, Sir Charles Napier, Duchess of Northumberland, Elegant, Duke of Cambridge, Sir George Grey, and Scarlet King; Turner's Emperor Bonaparte; Buck's George IV.—GENERAL JACQUEMINOT.

Can the colour of a Dahlia be told by the root?—No! certainly not. It is possible that a particular variety may in general have roots of certain habit, and that roots of such habit may be guessed to be such a variety, but whoever guessed is as likely to be wrong as right.

Calendar of Operations.

CINERARIAS.—The plants will be out of flower, and every care must be taken to preserve the young shoots from the ravages of slugs and greenfly. Young plants may be potted off, and cuttings put in as required, and placed in a frame or hotbed, which must receive careful attention. Shading the plants, giving air, and careful waterings will be all that is necessary. Seed may be sown in pots or pans.

DAHLIAS.—Complete planting as soon as possible. The soil having been well prepared during winter, a little rotten manure to each plant is all that will be required, unless the soil is very stiff, when a little leaf mould is beneficially employed, to give the plant a fair start. Keep them well and regularly watered.

FUCHSIAS.—The plants will now be getting very gay, and will well repay those who have given a little extra attention to their cultivation. They must be liberally supplied with water, and on no account allow them to get dry. Plants intended to flower in September should receive their final shift, and be stopped back about the first week in the month.

GREENHOUSE.—The early forced *Azaleæ indicæ* will now have made their growth, and should be removed to a cold pit; let them have a free circulation of air night and day, but shade from hot sun. Large specimens of most kinds of hard-wooded greenhouse plants will be better placed in a sheltered spot, out-of-doors, but tilt them on one side during heavy rains. The young growing stock, on the contrary, of such things as *Boronias*, *Croweas*, *Chorozemas*, &c., must be retained in pits or cold frames, and encouraged to grow by an occasional gentle syringing, and a partial closing of the lights. Attend to the young growing stock of *Heaths*, and give them another shift towards the end of the month. Stop all luxuriant growth in time. Give abundance of air to winter-flowering *Heaths* and *Epacris*, which should now be making good growth, and gradually inure them to a full exposure. Chinese *Primroses*, for winter and spring decoration, must now receive particular attention; the young seedlings should now be potted into three-inch pots; place them in a cold pit near the glass, and give them a free circulation of air, with shade from powerful sun. The double varieties are more tender in their constitution. They should now be starting into a fresh growth, and may be shifted according to their strength; but they will not bear overpotting. Place them in a cold pit, and give abundance of air, to dispel damp, and equalize the temperature by shading from hot sun; damp and drip are very injurious. Continue previous directions for *Calceolarias*, also the training-out of *Pelargoniums*, and supply both with liquid manure, when in full growth. The remaining stock of *Fuchsias*, for this season's bloom, should now have their final shift. Give the annuals for the conservatory their final shift, and grow them on as fast as possible. The *Chrysanthemum* cuttings will now be well rooted, and must be potted off immediately, and placed in a frame, with gentle bottom heat, until they have rooted out. Let them have a free circulation of air, and at the slightest appearance of mildew, dust the leaves with sulphur. *Lachenalias* may be dried off, and the quantity of water must be lessened to *Tropæolum grandiflorum* and *brachyceras*. Tie up the flowering stems of *Lilium lancifolium*, and place them in a sheltered situation, out-of-doors. Some lumps of nice fibry loam, laid around the base of the stems, will be beneficial.—*James Carter's Gardener's Vade Mecum.*

KITCHEN GARDEN.—Plant out now the main crop of Brussels Sprouts, in very good ground; also Borecole, Chou de Milan, Broccoli, Cauliflowers, Cape and Walcheren Broccoli, Savoys, a good breadth, Early Cabbage and Cos Lettuce, as fast as the ground becomes vacant, and can be got ready for them. See that a good supply of manure be trenched in. Persevere in thinning out all advancing crops of Carrots, Turnips, Red Beet and Cabbage Lettuces, and do not neglect to keep the surface constantly stirred, not only to destroy weeds, but for the welfare of the crops. Make again two sowings of Peas. Sow also more Turnips, French Beans; also Scarlet Runners and Long-pod Beans, for the latest crop; also more Spinach, Lettuces of sorts, Radish twice, a few Early Horn Carrots, for drawing in the autumn, and a few Onions, for drawing young if required. Make also another sowing of Endive, for the main crops. Plant out a good breadth of Celery, for the principal crops; let the trenches be well manured, and give the plants an abundance of water. Finish earthing up all the main crops of Potatoes. Train up and stop Tomatoes, as they advance in growth, and give them some manure-water occasionally.—*James Carter's Gardener's Vade Mecum.*

PANSIES.—The side shoots should be taken off, and put in to strike. They will throw up some fine blooms in the autumn. Watch carefully for slugs, earwigs, and the wireworm. Those that have been planted in a north border will continue to flower well during the summer, if liberally supplied with water. Those in pots will be going out of character, and should be put on one side, to seed. It must not be understood that it is advisable to save seed from flowers that are not in their true character. The reverse is recommended. Such as do not appear fair flowers should be picked off.

PELARGONIUMS.—If a few cuttings can be taken off any of the plants, they may be put into thumb-pots, to strike. If they are kept growing and are occasionally stopped, they will make nice plants for next season. The Geranium-house may be left open night and day, except in wet weather. High-coloured flowers will be in perfection. Look well to watering. This is the month that Geraniums are in perfection, and those who think of adding varieties to their collections, should visit the exhibitions, in nurseries. This saves a great deal of trouble. The flowers can then be judged by their own merits, and the purchaser's taste. Attend to the shading.

ROSES.—Where fine blooms are looked for, the long continuance of dry weather makes it absolutely necessary, where mulching has been neglected, that no further time should be lost. The maggots, too, improving by the occasion, are making sad havoc, where not closely looked after. Keep down aphides by syringing, which will also be of much benefit to the plants.—*In pots.*—Those done blooming should be plunged in a sheltered spot, and have a top-dressing of strong solid manure.



JULY.

Tulip Growing made easy.

LET us hope that, from the numerous enquiries we receive about the culture of Tulips, there is a new race of fanciers entering the field, and that those who now possess large stocks will set up beginners with their first beds at a reasonable rate. For our own part, if we can assist them with our advice as to the easiest method of growing them well, they shall not go without our aid. A bed of Tulips is, without any exception, the most gaudy of all displays. All florists' flowers have their claims—the delicacy of the Auricula, the great beauty of the Pink, Picotee, Carnation, and Ranunculus, the richness of colour and fragrance of the Rose—all have their charms, but no object in a garden comes up in effect to a well arranged bed of Tulips. A very humble grower may begin with a bed of mixtures, planted six inches apart, seven across, and any length the quantity may run to. If the ground will already grow a Cabbage, there is no fear but it will produce a fair bloom in a Tulip. If the ground be good workable soil two spits deep, trench it. They only require planting with the top three inches deep, and let this be done in October or November. They may then be left to themselves. When the spikes come through the ground, loosen the surface, which has, by the winter rains, been closed up, and then give air to the roots. The easiest method of doing this is with an old dinner knife, with end turned up, to form as it were a small

hoe; make it nearly red hot at the end, and it will be bent without difficulty. Use this like a hoe, tearing up the surface half-an-inch deep all over. If you take no further trouble, and let them have all the rain, sun, and wind, they will bloom well, last a week or two in good condition, and form the best feature in the garden. But if, when they are opening, you can keep off the sun and rain, they will last a fortnight longer in flower, and the blooms will be larger and better. This, then, being the most humble of all Tulip growing, and within the reach of everyone who loves a garden, and can buy a hundred mixtures, say seven to ten shillings, our next business is to go to the other extreme, and show how they are to be grown in perfection.

THE STAGE.

A Tulip house, or, as it is improperly called, a stage, should be constructed almost like the skeleton of a barn, to be covered with canvass; uprights five feet six inches or six feet out of the ground, and four feet apart in length, according to the number of rows to be grown; every row being scarce bulbs, the bed must be four feet wide, and a foot for every two rows. Suppose, then, there are to be fifty rows, the bed will be twenty-five feet long, and the house or stage should be thirty-five. There should be a four foot gravel walk on each side, and at the end of the bed something more, as there are generally seats for visitors. The two rows of uprights for the sides must be at least twelve feet asunder, and there must be two uprights at each end. A plate binds all these uprights together, and a span roof of rafters spring over from every upright. Upon the roof so constructed, a proper cloth is made, to roll up and down, and, to be perfect, light blinds should hang to the sides, by hinges, two between each opening; but the ends require smaller ones, and the canvass at each end above the plate is generally fixed. We like these sort of blinds, because we could always open or close them, or half open them, for it is desirable to give Tulips all the air we can. In windy weather, we closed on the wind-

ward side, and opened the other. But the growers are generally content without blinds, and make the canvass fast on both sides. At one end there should be a canvass door.

THE BED.

This should be excavated two feet six inches deep, and good draining should take away all water within three feet of the surface. A strong inch-and-half board edging should be made, four feet in the clear, well fastened to upright stakes, all round the bed, to stand three inches above the level of the path, four-inch boards, of the same thickness as those round the bed, should fit on, by bolts descending into staples in the lower board, so as to raise the wooden border four inches when put on. The object of this is, to place the Tulips upright, on a surface made level with the fixed border, and then put on the extra four inches, which, being filled up to the level, saves a good deal of trouble, and reduces the planting to a certainty. This carpenter's work being completed, we may set about filling the bed thus:—

THE SOIL.

The best compost for Tulips is the top six inches of a healthy meadow, stacked for a time to rot all the turves, and then it is loam, with a certain portion of vegetable mould. In preparing this, when old enough, the stack should be chopped down in thin slices, while somebody stands by, to pick out any grubs or wire-worms that may be found in it, and for this purpose it ought to be chopped over several times. When thoroughly freed from these pests, it is ready. Throw into the bottom of the bed, six inches of thoroughly decayed cow-dung, if it can be had; if not, use the dung from hotbeds; tread this down firmly, and it will be only half the thickness. Now fill up with the soil, heaped above the lower board, and to allow for settling, and let it be done a week before planting.

ARRANGEMENT OF BULBS.

Tulips consist of three distinct classes. Roses, which have various shades of pink, rose colour, and crimson

marks upon a pure white ground; byblœmens, which have all the various shades of lilac up to dark purple and almost black, marks on a white ground; and bizarres have straw, light, and dark yellow grounds, with markings of all colours, from light purple and brown to red and almost black. There are some Tulips called tricolors, but if used in beds they are used as bizarres. Of these classes there are what has been called first, second, third, and fourth-row flowers, that is to say, the shortest are first, or outside row, the second are rather taller, the third taller yet, and the fourth are the tallest. In arranging, therefore, for planting, the proper way is to procure boxes or drawers, with partitions for holding bulbs, say seven partitions one way and generally ten the other, so that every box or drawer will contain ten rows. The old-fashioned way of arranging the bed was to begin at one of the top corners; take the row with rose, byblœmen, bizarre, rose, byblœmen, bizarre, rose; the next row following up where we left off:—byblœmen, bizarre, rose, byblœmen, bizarre, rose, byblœmen; this finishes the second row; but continue with the next row,—bizarre, rose, byblœmen, bizarre, rose, byblœmen, bizarre; this finishes the third row, and this was continued all through the bed, so that no two of one class were next each other in the same row. This may be better understood by the following example:—

Rose.	Byb.	Biz.	Rose.	Byb.	Biz.	Rose.
Byb.	Biz.	Rose.	Byb.	Biz.	Rose.	Byb.
Biz.	Rose.	Byb.	Biz.	Rose.	Byb.	Biz.

Now, standing at either end of the bed, the first thing that was to us an eyesore was, that the centre flower had a byblœmen on one side and a bizarre on the other, and the row was not uniform. It was no use telling us that this was “the only proper way,” that “they were always planted so,” and other stuff about as sensible. We changed the arrangement in our own bed at once, by making the classes alike on both sides, thus:—

Rose.	Byb.	Biz.	Rose.	Biz.	Byb.	Rose.
Byb.	Biz.	Rose.	Byb.	Rose.	Biz.	Byb.
Biz.	Rose.	Byb.	Biz.	Byb.	Rose.	Biz.

The uniformity pleased everybody, even some of the most obstinate of the old fogies among the growers; but we found it possible to improve upon our first advance, by not only having the same classes on each side of the centre, but duplicates of the same flowers, for it was quite clear that roses, or byblœmens, or bizarres differed greatly from each other in colour and character. As an example of the still improved mode of planting, we hand the following:—

Cerise Blanche.	Louis XVI.	Poly- phemus.	Rose Bacchus.	Poly- phemus.	Louis XVI.	Cerise Blanche.
Roi de Sheba.	Strong's King.	Ver- ginnes.	Siam.	Ver- ginnes.	Strong's King.	Roi de Sheba.
Gloria Mundi.	Brilliant.	Violet Quarto.	Devon- shire.	Violet Quarto.	Brilliant.	Gloria Mundi.

Those who could afford it, made up their beds in duplicate as nearly as they could, and the extraordinary improvement in the general effect pleased everybody but those who could not carry it out. In addition to the distinctions of first, second, third, and fourth-row flowers, it must be borne in mind that a root not fully grown will be shorter than a full-sized bulb, therefore a small middle or fourth-row root will do for a third, and a small third-row bulb will do for a second, and a small second-row flower for a first, so that there is abundant means of meeting the requisite heights.

PLANTING.

The soil having settled, it has to be levelled to the lowest wooden frame; this can be done by merely scraping off level with a stiff bit of wood, pressed close to the board the whole distance, but some use a frame, with iron nails driven in, so that the drawing of the frame along the bed makes the seven straight lines; notches, at six inches distance along the board, enables one of each side to make the cross marks. The bulbs are then placed upright, at the places where the lines cross. The extra four-inch board is then put on, and the soil filled in till quite level with the top. Allowing,

2 Q 3

then, that the point of each Tulip is an inch above the lower level, they will all be three inches deep, when the soil is level with the top. Many put a little silver-sand all over the bulbs, before covering up, but if the soil be clean there is no occasion for it; we never do it, although, following the old ones, we did fifty years ago.

PROGRESS OF THE PLANT.

We have, for many years past, made up our minds that frost and much wet (although no amount of either will kill), greatly damage the flower. On that account we should not allow either to reach the Tulip, if we wanted to show, or were particular about smooth edges, but as the texture of the flower is not all alike on the extreme edges, the least frost or excess of wet blights portions of the edge, while more fibry portions are not affected; the blighted portions do not grow, but waste, and therefore form so many serratures, and occasionally the blight runs down and forms a complete split in the petals. On this account we have hoops of iron to cross the bed as soon as the bulbs are planted, and rods, tied lengthways, to form a skeleton roof, over this we fasten a net, which, being closed down all round, is a protection against cats, and a waterproof but light covering of close duck can be thrown over in bad weather and at night. We are quite sure that Tulips take no harm without water; they do not depend upon any moisture within a foot of the surface, and their roots, in the absence of top moisture, go down after it till they find it. We never uncover in frosty weather; in short, we use extra mats and covering, rather than let it reach the growing spike. If the ground be frozen next the spike, it causes notched petals, and ugly flushes of colour. When the spikes appear, stir the earth all over the surface. A genial shower may tempt us to let the foliage get a little wetting, but if they be not dry you must be doubly careful in keeping away frost. Remember that every hour that is fine they should be kept open for the benefit of the air and light, to prevent them from drawing.

THE BLOOMING.

When the blooms begin to change their colour, put up the sides, take away the hoops and matting, and set the top cloth on in rolling order, because you must not let the full sun meet them; nevertheless, you must do no more than keep off the sun. The advantage of blinds that can be opened to the full size, as compared with fixed side cloths that cannot be removed, is felt at this more than any other period, because they can be closed to keep out wind, and opened on the side that the wind does not reach. People must always be in readiness to let down the roof. In still cloudy weather let them be quite free from shade or cover, but be prepared for a storm, so that you can let down the top cloth in an instant. Hailstorms are common in April and May. As the flowers are developed, watch every bloom, and make a memorandum of anything worth note. You may put a common tick against all that come true, and of average quality, put a cross against any remarkably fine, a distinguishing mark of some kind against all that are to be omitted next year from the best bed, and mention, in the proper places, the changes that are contemplated.

AFTER BLOOMING.

When the flowers decay, lose no time in picking off the seed pods, and throwing the bed completely open to all the weather, until the stems have died half way down, and then carefully take them up and cut off the stems pretty close, returning the bulbs to their boxes, which must be put in the shade until the bulbs have dried, when, one by one, they may be taken out of the partitions they occupied, to be cleared of their skins, and be set aside in their winter quarters. The Tulip stage is a famous place in which to bloom Picotees and Carnations, for they want shading, and they do not like wet.


CONCLUDING REMARKS.

All this seems to us like doing the same thing over again, because we have gone as deeply into the subject as anybody, many years ago, and could then show fifty

rows of the best in cultivation, as a guarantee that we were only preaching as we practised. We have shortened the thing as much as possible, and we have told our younger friends how they may cheaply indulge in a beginning. Fifty-two years ago we began with a hundred mixtures in a Cabbage garden; the very next year our propensity for Tulip fancying was sharpened by a sight of a middling bed, and we were indulged in it at home, so that we boasted a bed of named Tulips, of twenty rows, and covered with iron hoops and a cloth, and visited almost all the good beds round London. In the midst of our floral glory, in which, under Gabel for a tutor, we had aspired to *Auricula* and *Ranunculus*, Pink and Carnation growing, we had a few years interregnum, for we were located in London, without ground enough to swing a cat in, but in 1830 we went at it again in earnest, and made the best use of our time and experience. Some of our older readers will see nothing new, but they must make allowance for the thousands of young ones who were not, at that period, old enough to feel an interest in gardening books of the day, but who are, as we were at first, anxious to make a beginning, and we do not know where they can learn more than in the MIDLAND FLORIST.

GEORGE GLENNY.

Do Toads swallow their Skins?

E are certainly sometimes almost puzzled at the queries of our correspondents; for instance, the postman brought us, some three weeks ago, the following communication:—"To the Editor of the MIDLAND FLORIST. Sir,—I am one of your lady subscribers, and of course am much pleased with your, or, I think I may say our, work. I am going to ask you, through its pages, whether it is true that toads do cast their skins? I know you will think it a most singular question, but some gentlemen and ladies who

were at our house quite laughed at me when I said that toads did most certainly, and that I also believed frogs too cast their skins. This subject came up by the fact of a toad crossing our path, when walking in the garden, and, in a discussion in the evening on the matter, I, taking the side of the toad, was speaking of its habits, and stated that their skins were cast at intervals. Now, Mr. Editor, I know it is a singular question, but if you can please answer it in a number of the MIDLAND FLORIST we shall feel greatly obliged. You know that the toad is a "gardening" subject, and, although perhaps a singular subject for a lady to write to you about, still a real searching after knowledge, even a knowledge of the toad, is perfectly legitimate. Hoping you will pardon the intrusion, I am, your sincere friend, EMILY." When we had read the letter, we thought that, although from personal observation we could not give any precise or exact information, still, by the aid of a little research, we might throw some additional light on the subject, we therefore procured several works, and the following is the result:—The best discussion we find of the subject is in Kidd's own Journal, published a few years ago. Mr. W. Marshall, of Ely, says:—"I have kept about twenty-five toads two years, during all which time I watched their habits, and saw the operation (that of casting their skins and swallowing them) performed at least forty times. The change takes place in the warm months, and occurs once in the course of a month or six weeks; not annually. So much for toads. I never saw a frog swallow its own skin, but in dissecting one, I found a perfect skin in its stomach, undigested, and complete to the very fingers." In another paper we are told by Mr. Henslow, of Hitcham, that he has two Jersey toads, which have changed their skins. Bell, also, in a work published in 1839, describes minutely the toad's behaviour, while shedding his skin. The testimony of Thomas Rivers, Esq., of Sanbridgeworth, the celebrated Rose grower, and the inventor (if we may be allowed the term) of orchard houses, is quite conclusive. He says:—"Some time during the month of July, 1851, I was sitting cosily in one of the vineries,

smoking a fine flavoured cigar. I was in a pretty happy vein, I remember, for my Vines were healthy and vigorous, and nature all round me was charmingly attractive. Whilst blowing a cloud, and gazing listlessly on the spiral smoke, as it curled gracefully upward, my eye chanced to fall upon a toad, which nearly touched my feet. I thought little of this, as several of these creatures have made this vinery their home. I imagined the animal was looking for flies, and therefore took little notice of him. He seemed, however, unusually fidgetty, and he writhed about as if in pain. This induced me to regard him more closely, and to put on my glasses, thus clapping a double pair of eyes on his movements. It was evident he cared nothing for this, for he at once tore half the skin off his back, and swallowed it. By a second herculean tug he ripped off the other half, and stood before me perfectly naked! When he had swallowed the last remnant of his skin, he looked as pleased as punch,—no alderman, indeed, could have looked more complacent after having swallowed a tureen of turtle whilst preparing for the venison to follow. This toad, I fancy, was only half-grown; it was of a very moderate size. Now, sir, I am no chicken, but rather an old rooster (to use the refined American phrase), and I hope to meet with a ready credence from your readers.” We think that we have given abundance of testimony that toads do cast their skins, and not only so but that they also swallow them, when they have cast them. As for frogs, we are in a quandary—indeed we don’t believe that they do swallow their skin. Before we close this paper, we should like, while on the subject, to give an instance of the sagacity of the toad, from Mr. W. Whytehead, of Risley, Suffolk, and inserted in the before-named work. “In a small bed of Radishes, closely covered with a herring net, to keep off the sparrows, a large toad was seated upon its form several days. The toad changed its position on the bed sometimes, and had two or three forms, like a hare. It was frequently removed from under the net to distant parts of the garden, but invariably returned to the Radish bed. Having heard a

surprising account of the difficulty of banishing a toad from the place of its choice, the observation of these facts seemed confirmatory of it, and it was resolved by myself and my friend, in whose garden the remarks were made, to put the matter to a severe trial. The garden, which was large, was entirely walled round, excepting a small gate leading into another garden. This garden was also walled round, but there was a single small hole under the outer door, into a field. Behind the inner wall was a shrubbery, and into this we took the toad, little expecting to see it again; but, to our surprise, it was seated the next day beneath the net, on one of its forms. To reach that place it must have gone through the fence of the shrubbery into a field, then through another fence into a second field, next through the hole under the outer garden door, and lastly, through the gate into the inner garden." We hope that these few remarks will be read with pleasure by most of our readers, as well as by our friend "Emily." We have answered her letter to the best of our ability, and we think we have satisfied her that not only do toads eat their skins, but that they also swallow them.

The Royal & National Tulip Exhibition.

THE eleventh annual exhibition of this society took place under a marquee in the Royal Nursery, Slough, and although the flowers were not quite so numerous as on several former occasions, they were far better in quality than has ever been produced at a National before. Absolute purity was made the basis of the decisions of the judges, and we cannot help thinking that an absurd stress has been placed thereon, it being a varying quality. Aglaia, Lac, and many other leading varieties, although generally pure, will occasionally come cloudy at the base of the beams. Lord Denman, Lady Denman, and other varieties are

perfectly pure in some situations, and the filaments slightly stained at the top in others, and some varieties will be perfectly pure some seasons and not so in others. In making these remarks we are not advocates of impurity, and Tulip growers in general are now pretty well agreed as to what constitutes a fine variety, and those sorts with flimsy petals, long or bad shaped cups, those irregular or unsteady in their marking will soon share the same fate as those with foul bases, and, with them, be consigned to the tomb of all the capulets. The past season cannot be considered to have been a good one for Tulips generally, but the reverse. Where not carefully protected, they were very much cut. We were pleased to see such a fine lot of flowers in the marquee, and we may safely state that so many new varieties of first-rate quality were never before seen on a similar occasion. One gentleman, an enthusiastic grower, of some twenty to thirty years standing, said he had seen more good Tulips this season than he had ever seen since he had been a Tulip grower. The judges were Dr. Hardy, of Warrington, Mr. Norman, of Woolwich, with Mr. Turner as referee, and we believe their decisions gave great satisfaction. Censors must always expect a little friendly criticism, and for Tulip growers freely to express their opinions on their decisions, but the only remarks we heard made were that the first three flamed flowers were wrongly placed, and some thought the fourth twelve and second six should have been placed higher. Although fine flowers, they wanted a few more days growth. The following are the awards, and our remarks are, as last year, included in brackets.

TWELVE DISSIMILAR BLOOMS, FOUR IN EACH CLASS.

1. R. H. Betteridge, Esq., with Heroine, Triomphe Royale, Catalini, Countess of Wilton (slight stain bottom of the beam), Lord Denman (pure), Alcon, Thalia, Spencer's First-rate (Sarah Ann, or flamed Maid of Orleans), Royal Sovereign, George Hayward (fine feathered bizarre), Marcellus, and Polyphemus. 2. Mr. W. Lawrence, with Lady Wildair (slight blue bottom of the beam), Jupiter (delicate feathered bizarre, good), Brown's Ulysses (feathered Polyphemus), Maid

of Orleans, flamed, Bloemart, Aglaia, Duke of Northumberland (very much like, if not the same as Bloemart), Queen of Hampton (delicate feathered bybloemen, good), Charles Brown, Madonna (fine flamed bybloemen, but bad shape), Madam Vestris (too heavy), and George Hayward, feathered (rather streaky). 3. Mr. T. Westbrook, with Isabella (delicate feathered and flamed rose), Royal Sovereign, General Barneveldt (good for the variety), Bion, flamed, Everard (nearly a feather), Bloemart (too heavy), Catalini, Polyphemus, Maid of Orleans, flamed, Triomphe Royale, Vivid (not good), and Thalia (lightly marked). 4. Mr. Godfrey, with Duke of Devonshire, Mrs. Pickerill (a fine feathered bybloemen, with the drawback, however, of the three outer petals pointed and slightly recurved), Aglaia, Royal Sovereign, Triomphe Royale, Merit, Miss Grace (scarlet feathered Rose, fine), Queen Charlotte, Lady Franklin (a flamed Maid of Orleans), Heroine, Vivid, flamed (good), Abbott's Gem (good). (In this stand the flowers were all perfectly pure, correctly marked, and uniform in size, but wanted three or four days more growth, and it was the opinion of several that they should have been placed second). 5. Mr. J. Hepworth, with Heroine, seedling (a light feathered and flamed bybloemen, good), Sovereign, Princess Royale, President (a red feathered and flamed bizarre, good), Aglaia, feathered seedling (like Triomphe Royale), Vivid, feathered, Aglaia, flamed, Ulysses (a feathered Polyphemus, not a clean feather), Seedling No. 210, feathered bybloemen, Seedling No. 80, a flamed bybloemen (too heavy). 6. Charles Williams, Esq., with Willison's King (too heavy), Duchess of Sutherland (fine), Louis Philippe (flamed bizarre, good), Don Pedro (like Musidora, not good), Violet Quarto (flamed, good), Headley's Helena (flamed Rose, like Triomphe Royale, but not so good), Salvator Rosa, Brown's Mayor of Manchester (delicate feathered bizarre, missed in the feathering), Anastasia (good), Dr. Horner (fine), La Tendresse (like Catalini), Triomphe Royale.

The other exhibitors in this class were Mr. Allestree, J. Hunt, Esq., — Molyneaux, Esq., S. M. Sandars, Esq., Mr. Hawes, R. Headley, Esq., M. Mercer, Esq., and the Rev. S. Creswell, whose stand was disqualified in consequence of a band that was placed in one of the flowers for safety in travelling, being accidentally left in. We understood it was placed third, until the judges discovered the oversight.

SIX TULIPS, TWO IN EACH CLASS, ONE FEATHER AND ONE FLAME.

1. R. H. Betteridge, Esq., with Triomphe Royale, Incomparable (old variety, but as shown, a good flamed bybloemen),

Willison's King (delicate feather, good), Heroine (good), Seedling (a feathered bybløemen, like Maid of Orleans), Willison's King (flamed, good). 2. Mr. Godfrey, with Lady Franklin (flamed Maid of Orleans), Sovereign, Merit, Heroine, Triomphe Royale, Mrs. Pickerill. (This was a pan of fine flowers, but, like his twelve, wanted a few more days growth). 3. Mr. Allestree, with Aglaia, Lorenzo, Masterpiece (out of shape from age), Kate Connor (fine), Merit (old), Chellaston Beauty (small, not good). 4. Mr. J. Hepworth, with Heroine (flamed), Platoff (another name for Sovereign), Aglaia, Seedling No. 210 (delicate feathered bybløemen), President, Bloemart. 5. J. Hunt, Esq., with George Hayward (a fine feathered bizarre), Lord Denman, Lady Denman (delicate feather, quite pure), Triomphe Royale, Heroine, Delaforce's King (stained bottom of beam). 6. H. Steward, Esq., with Charles X. (Sovereign), Brown's Salvator Rosa (good), Violet Quarto (good), Sarah Headley, Triomphe Royale, Pilot.

Other exhibitors in this class were Mr. J. Hepworth, S. M. Sandars, Esq., J. Thornily, Esq., Mr. Hawes, and R. Headley, Esq.

THREE FLAMED, ONE IN EACH CLASS.

1. C. Williams, Esq., with Groom's Orpheus (a fine flamed bizarre, like a good Shakespere), Duchess of Sutherland, Triomphe Royale (too heavy). 2. R. H. Betteridge, Esq., with Incomparable (a fine flamed bybløemen, an old variety), Triomphe Royale, Glory of Abingdon (a fine feathered and flamed bizarre, rather too long). 3. Mr. Godfrey, with La Bien, Amie, Triomphe Royale, Colonel Windham (a feathered and flamed bizarre, pure, but bad shape). 4. R. H. Betteridge, Esq., with Mountain Sylph (a fine feathered and flamed Rose, perfectly bleached), Polyphemus, Triomphe du Monde [flamed bybløemen, pretty]. 5. C. Williams, Esq., with Sir J. Paxton, Lady Exeter, Crooks's Alice (much like Aglaia).

Most of the exhibitors in the other classes showed also in this.

THREE FEATHERED, ONE IN EACH CLASS.

1. Mr. Godfrey, with Sovereign, Victoria Regina (quite clean), Heroine. 2. Mr. J. Hepworth, with Seedling 210 (delicate feathered bybløemen), Heroine, Surpass Catafalque (pure and good). 3. Rev. S. Creswell, with Cotterill's Elizabeth (delicate feathered bizarre, pure and good), Lady Douro, Heroine. 4. R. Headley, Esq., with Vivid, Belle Nannette (Heroine), Duchess of Cambridge (delicate feathered bybløemen, greasy bottom). 5. R. Headley, Esq., with Aglaia, Fanny, [stained stamens, like La Belle Narene], Pactolus, [a large delicate red feathered bizarre, grand].

CLASS E.—SIX BREEDERS, TWO IN EACH CLASS.

1. R. H. Betteridge, Esq., with Seedling Rose No. 38 [fine large base], Seedling ditto, Earl of Warwick, Polonious, Sobraon, Henry Fugeli, [a fine bizarre breeder, stiff petals, short cup, rather too much incurved at the top]. 2. H. Steward, Esq., with Pilot, Princess Royal, Sable Monarch, Anastasia, Juliet, Willison's King. 3. Mr. Allestree, with Sobraon, Adonis, [fine], Juliet, Seedling bizarre [very good], Earl of Warwick, Parker's Queen of England, [fine Rose breeder, but much past its best]. 4. Mr. J. Hepworth. No names.

CLASS F.—THREE BREEDERS, ONE IN EACH CLASS.

1. R. H. Betteridge, Esq., with Sir J. Paxton, Seedling Rose No. 38 [very fine], Sarah Ann. 2. H. Steward, Esq., with Paxton, Anastasia, Princess Royal. 3. J. Hunt, Esq., with Juliet, Sarah Ann, Pilot. 4. Mr. J. Hepworth. No names.

The prize for the best Tulip of any class in the entire exhibition was awarded to R. Headly, Esq., for his seedling Adonis, a superb feathered bybloemen. Amongst the flowers not previously noticed, first and foremost were the seedlings raised and exhibited by R. Headly, Esq. The varieties raised by this gentleman are far in advance of many now in cultivation, in fact many are perfect, and will be grown and admired as long as the Tulip is cultivated. In addition to Adonis, we particularly noticed a beautiful light feathered and flamed bybloemen, called John Linton, good in every respect; Sarah Headly, a fine feathered rose, short cup; Lucifer, a delicate feathered bizarre, a fine flamed bizarre, broke from the breeder, this season; and Pactolus, a grand centre-row feathered bizarre. The Rev. S. Creswell showed a grand feathered and flamed Rose, very large, perfectly pure, and correctly marked, to be called Queen of England. It was past its best, and not near so fine as it was the Tuesday previous, when we saw it in his garden. Mr. Hepworth also had some beautiful seedlings. His breeders were not named, and the broken flowers are described in noticing his stands. We intended to see his collection, at Lea Bridge, but finding it would take up too much time, we relinquished

the pleasure. However, our friend Mr. Lymbery went, and was highly gratified. His notes on Mr. Hepworth's Tulips will be inserted in the MIDLAND FLORIST. Mr. Betteridge showed Incomparable, a fine flamed bybloemen, rather too long; Charles Kemble, a fine flamed bybloemen, like a fine flamed Maid of Orleans; Surpasse Pompe, delicate feathered bizarre. Selim, feathered, fine; and Eldorado, flamed bizarre, in our losing stand of twelve, were fine and distinct from any other variety. A military band, consisting of from twenty to thirty performers, played some excellent pieces, but heavy rain coming on at intervals interfered with the arrangements, and marred the enjoyment of those present. Had the day been fine, the company no doubt would have been large; fortunately, however, the marquee, Tulip tent, and Mr. Turner's numerous greenhouses afforded ample shelter. During the afternoon, a vote of thanks was unanimously passed to Mr. Turner and the executive, and it was agreed by the Tulip growers present that the next meeting shall be held at Cambridge, under the auspices of Mr. Headly, with the understanding that the year after it shall go to Nottingham, and then go northward, probably to Manchester. We cannot close this account without a passing notice of the Royal Nursery, Slough. Whatever Mr. Turner does, he does well. His principal bed, containing one hundred and eighty rows, although rather past its best, was a magnificent sight, but these we shall refer to in another paper. The numerous greenhouses, filled with Azaleas, Pelargoniums, &c., the pots of Carnations, frames of Auriculas, beds of Pinks, flats of the choicest Coniferæ, Roses, fruit trees, &c., were in perfect health, and the most admirable order and neatness pervaded every department. All plants grown by nurserymen generally are grown by Mr. Turner, excepting one class, and of these we did not see one. We will observe, however, that they are interesting to the botanist alone.

T. ALLESTREE,

Draycott, near Derby.

Scottish Pansy Society.

THE fifteenth competition of the Scottish Pansy Society was held in the Victoria Hall, Zoological Gardens, Edinburgh, on the 4th instant, in connection with the exhibition of the Edinburgh Horticultural Society. On entering this fine hall, the eye was greeted with a magnificent display of specimen plants of Geraniums, Fuchsias, and Azaleas, forming a combination of colour and effect truly dazzling, and constituting not a bad contrast to the more simple beauties of the Pansies, which occupied an entire table, extending from one end of the room to the other. The muster of the Pansy growers was as good as usual, if we may judge by the number of well-known faces, from all parts of Scotland, that we only see on this occasion, all the year round, who had come to try their strength at our National gathering. With the recollection of a good many previous competitions, the blooms, taken as a whole, were hardly as fine as on previous occasions, still there were many flowers of rare excellence and sterling qualities exhibited. The very bright weather which we had for a fortnight before the show had begun to tell on the beltings of the white grounds especially, and there was a perceptible flushing of colour, which constituted a bad fault in many blooms of this class shown. Flowers are very valuable that stand the sun well. Take, for example, the Countess of Rosslyn, white ground. This Pansy improves with the season. In early spring, the blotch sometimes runs into the belting, but with plenty of sunlight, the ground enlarges, till she becomes the queen of her class, and perhaps the most perfect Pansy yet raised. Fair Maid, white ground, raised at Chesterfield, last season, I think, is a very refined variety. A bloom of this sort ran the Countess of Rosslyn very hard for the best white ground in the room. Had Fair Maid been perfectly pure in the ground, no doubt she would have been the premier flower, but, unfortunately, there was a slight yellow stain observable under the blotch that destroyed her

chance, so that Rosslyn is still the queen of her class. Mrs. Laird, raised by Messrs. Downie and Laird, was shown also fine. It is a white ground, or rather a creamy white, with blue purple belting, which is continuous; the flower is also symmetrical and smooth. I have, since the Pansy Society's meeting, shown the Countess of Rosslyn against Mrs. Laird, and come off second best. I have no hesitation in recommending the latter as among the very best white grounds out, and a formidable rival to any in that class. Colonel Wyndham, raised by Mr. Laing, at Dysart, the same year as Rosslyn, has come out in great style, this season. It was among the best flowers shown, and certainly in better condition than it was ever before seen. Mary Lamb, that was to eclipse everything, was shown in bad condition. I have no doubt she has been seen good, but the sin of inconstancy is unpardonable, even in Pansies. The colour of the belting fugacious, and a creaminess below the blotch constitute her principal failings. Old Royal Standard also, in this class, was shown in a very fine state. With some, this variety will not grow at all, but Messrs. Downie and Laird, Douglas, &c., seem to have the secret, as, in their stands, it was A 1. With a denser blotch, it is the finest Pansy yet raised. Last, but not least, in this class, is a seedling flower, which obtained a certificate of merit as a seedling. It is in the style of Mary Lamb, but a beat on that sort. The blotch is much denser and more striking, and the belting seems to stand better. It is a promising sort, and, so far as one can judge by seeing three blooms, well worth growing. It was shown by Mr. Douglas, Rosebank, Edinburgh, and is named Mary. In yellow grounds, Mr. McFarlane, Barnton, near Edinburgh, took the prize for the best flower of that class in the room, with C. W. R. Ramsay. It also had a certificate as a seedling. Four blooms were shown, three were hardly up to the mark, but the fourth was a beauty. There is no doubt that this will turn out a good sort, as a novelty. It is a bold striking flower, with chrome yellow ground, which is large, blotch dense and distinct, and in other particulars, of average quality.

Mrs. Hope was seen fine, and the other standard yellow grounds were in good condition. Before closing on this section, I beg to recommend the Marquis of Beaumont, as one of the best yellow grounds out. It is a flower little known, but a most formidable show sort. The regularity of its narrow belting, and beautifully pure ground give it a place at the very top of the class. It was raised by Messrs. Stuart and Mein, at Kelso, two years ago, and is well worth asking about. In the dark self class, Royal Purple took the prize for the best flower in the room, also for the best self. As shown, this was a very perfect bloom, being very symmetrical and well coloured, but it had objectionable rays running into the eye, a failing point in many selfs. Titan ran this variety very hard for the priority, and is a fine large smooth attractive variety too. Indian Chief is a very refined self, and well worth careful cultivation. It seems to improve as it ages. Mr. Graham is also a refined sort, and very distinct in colour. It was sent out this spring. Mr. White, Nepaulese Prince, Jeannie, Georgy, and Gem are all first-class show flowers. Who can raise as a good white self? it has yet to be done, as Royal White, smooth and fine as it undoubtedly is, is undersized. Yellow Model also retains its place, and it is far from perfection.

PRIZE LIST.

For Nurserymen.—Best Twelve Blooms.—1. Messrs. Downie and Laird, Edinburgh. 2. Messrs. Dickson and Co., Edinburgh. 3. Mr. Douglas, Rosebank, Edinburgh. 4. Messrs. Robertson and Paul, Paisley.

Practical Gardeners and Amateurs.—Best Eighteen Dissimilar Blooms. 1. Mr. McFarlane, Barnton, Edinburgh. 2. Mr. Fraser, Belmont, Edinburgh. 3. Mr. Niven, Keir, Stirling. 4. Mr. Dunlop, Inglis Green, Edinburgh.

Practical Gardeners and Amateurs.—Best Twelve Dissimilar Blooms.—1. Mr. McFarlane. 2. Mr. Dunlop. 3. Mr. Niven. 4. Mr. Gibson, Cathcart, Glasgow.

Practical Gardeners and Amateurs.—Best Six Dissimilar Blooms.—1. Dr. Stuart, Chirnside, Berwickshire. 2. Mr. Hampton, Newport, Fifeshire. 3. Mr. Niven, Keir, Stirlingshire.

Amateurs exclusively, who cultivate their own Plants.—Best Six distinct Sorts. 1. Dr. Stuart] 2. Mr. Hampton. 3. Charles Watson, Esq., Dunse, Berwickshire.

Classes open to all.—Best Twelve Dissimilar Blooms.—1. Mr. McFarlane. 2. Messrs. Dickson and Co. 3. Mr. Dunlop.

Sweepstakes of Two Shillings and Sixpence, open to all.—Best Twelve Distinct Sorts.—Mr. Douglas, Rosebank.

Single Blooms.—Best Self in the Room.—Mr. Edward Taylor, Blaydon Burn, Newcastle, with Royal Purple.

Best Yellow Ground.—Mr. McFarlane, with C. R. W. Ramsay.

Best Light Ground.—Messrs. Dickson and Co., with Countess of Rosslyn.

Best Pansy in the Room.—Mr. Edward Taylor, Blaydon Burn, Newcastle, with Royal Purple.

Amateur's Class.—Best Dark Self.—Mr. Hampton, with Indian Chief.

Best Yellow Self.—Mr. Wilson, Old Cathcart, Glasgow, with Yellow Model.

Best Light Ground.—Dr. Stuart, with Countess of Rosslyn.

Best Yellow Ground.—Mr. Wilson, Old Cathcart, with Sir Charles Napier.

Certificates of Merit were awarded to Mr. McFarlane, Barnston, for C. R. W. Ramsay, and to Mr. Douglas, Rosebank, for Mary.

The next meeting of this society is to be held at Glasgow, in June, 1860, when the eastern growers will have an opportunity of trying their strength against the western growers, and where, no doubt, there will be a first-rate competition.

C. S.,

Berwickshire.

Northern Counties Tulip Society.

CONSIDERING the season, the Northern Counties Tulip Society exhibited a very fair stage of flowers. We have now had a series of bad seasons for the blooming of Tulips. The one just closed has been, in my opinion, the most disastrous, and will long be remembered by a many growers in Lancashire. The first three sons of the year being of an open and mild disposition, Tulips were looking remarkably healthy, and bid fair for an early bloom, but in comes the fourth, advised for a time by his older brothers, but about the middle of his reign turned traitor to their cause, bid their progress stand, and so pinched the tender heads of the florists' pet that they at once gave up all hopes of ever appearing in their richest attire on the stages of 1859. At his death

he was succeeded by his brother, May, who contented himself with pouring forth those dry easterly winds which always prove so disastrous to our gardens, indeed, so much so that a great many of the Tulip buds were blighted, and almost all the flowers exhibited bore tales of this severe ill-usage. The show was a few days too late, in consequence of which some of the subscribers could not stage their blooms, amongst whom I may mention W. J. Hardy, Esq., of Warrington, William John and Zachariah Peacock, Esqrs., of Denton, Henry Steward, Esq., of York, and several other leading growers, who either staged none or very few. The first pan of six, belonging to Mr. Travis, were well bloomed and very fine, especially the flamed ones, the feathered were not quite so good, and, judging from the quality of the feathered flowers generally, it must have been a bad season, for perfect ones were very scarce. Mr. Harris also exhibited the best pan of three breeders, which were also well grown and very fine. Mr. Bromley, of Macclesfield, exhibited some very good specimens, showing that he had had a kind bloom. Messrs. Nunnerley and Potts, from the same neighbourhood, also staged very tidy blooms. Mr. Barlow, of Stake Hill, was scarcely in his usual condition, having disposed of a many gems of his collection, during the past season. Amongst the comparatively new kinds, I think the most conspicuous is Walker's Duchess of Sutherland, a flamed byblöemen, perfectly pure, and with a Heroine whiteness, of good form, and fine, both feather and flame, and a most exceedingly steady sort, bids fair to become one of the most important additions to its class, that we have had for some time. A feathered bizarre, St. Clair, exhibited by Mr. Bromley, was a very desirable kind, of good golden yellow, and dark feather. Violet Amiable was very fine, minus sundry skips in the feather, to which this fine sort is liable, but still one of the most desirable kinds for a pan flower, blooms early and stands well. Mr. Lea, of Leigh, had a splendid break of Ashmole's No. 9, feathered bizarre, large bloom, good yellow, and beautifully feathered, in fact everything about it pro-

missing, and if done in this style, Charles must give up the belt. You will perceive that out of the nine bizarre breeders five were Ashmoles, of Middleton. Purity, breeder, was very fine. William Bentley, a pretty breeder, with a Bienfait cup. Canova was fine, but with a deep blue stain at the parting of the white, which will detract from it as a breeder, but it is said to break out in the broken flower, if so, it is an undeniable sort, but we must wait another season, to speak positively, as the flowers were past their best when we saw them. Generally speaking, the old faces have swept away almost all the prizes. Heroine, Magnum, Bienfait, Cato, Charles, Denman, Magnus, and Polyphemus were in good style; San Joe, Aglaia, &c., were likewise very good, but some of them were past their best.

A TULIP FANCIER.

The Polyanthus.

THE few notes we have made of the best varieties in cultivation, during several months, has caused somewhat of a furor for information with regard to the cultivation. We regret to say, that owing to ill health and other difficulties, our friend, Mr. Hammond, has not been able to give us his mode of cultivation, but we have his promise that, ere long, he will do so. We have, however, no less than thirty letters on our file, asking for the culture of the Polyanthus. Not being growers ourselves, and knowing of no one to whom we can refer, we are obliged to have recourse to extracts from some other work, the best instruction we can find. It is a paper by that enthusiastic florist, Dr. Horner, of Hull, and appeared in the FLORIST some years since:—"As this is the first of florists' flowers to greet in the spring, and as the time of its growth or flowering is that at which a plant effectually bespeaks attention, I shall now offer some

reminiscence on the culture of the Polyanthus. The Polus anthos—Polyanthus—(many flowered) is a direct descendant from the *Primula vulgaris*, or common Primrose. Yet “quantum mutatus ab illo,” what a change have the labours of the florist wrought here! so great, indeed, that we are compelled to resort to the more exact science of botany to assure us of its undoubted origin. For, not only has cultivation imparted to it a new as well as a distinct arrangement of colours, but the textile stem of the Primrose has been converted into the scape, or elevated stem, bearing an umbel of flowers, as in the recognised Polyanthus of florists. That the Polyanthus is, indeed, thus derived, the florist is too often vexatiously reminded, in witnessing among his cherished hopes, in a bed of seedlings, a fair sprinkling of Primroses, both plain and coloured; while the cultivated seed of the Primrose will not unfrequently produce coloured flowers, and that on an elevated stem. Among the whole range of florists’ flowers not one is of more easy cultivation than the Polyanthus, and yet I know that I rightly tell the experience of the majority of florists when I say that with no flower have they generally been so unsuccessful. The great fault lies in the fruitless attempt to grow it in pots. Even under such excellent instructions as Mr. Neville has lately detailed, in the FLORIST, it will not thrive, or show half its luxuriance and beauties. It is not difficult to account for its impatience of pot culture, which is, perhaps, referrible to several causes. Thus, when so circumstanced, it is subjected to a lack of that degree of moisture so acceptable to it, which may arise from inattention to watering, the cramping of its roots, for the Polyanthus, grown in the open border, is most prolific of long, thick, fleshy, fibrous roots; but chiefly, I conceive, is it dependant on the confinement within the cold frame, and which no attention to airing can obviate, inducing a paleness and softness in the leaves and flower stems, strongly contrasting with the firm, crisp, yet succulent and luxuriant green foliage of those which are grown in the open bed. The only sure guidance in the artificial cultivation of a plant is the observance of its

natural condition and habitat. And where grows the Primrose, in its wild luxuriance, but in the shaded lane or woodland? And, though it is sometimes seen to adorn, in the spring, the sunny bank of a hedgerow, yet, ere the summer's sun can visit it, even there it will be found that Flora has kindly sheltered her favourite amid the shadowing growth of others of her train. The Polyanthus, then, should always be grown in a cool bed or open border, which has an eastern aspect, or which is otherwise wholly shaded from the summer's sun, for it is most impatient of heat and draught, and, it may be added, of confinement and smoke also; hence it can never be grown well in the immediate vicinity of large towns. Good and retentive sod-soil, from an old pasture, of this four parts, enriched with one other part of old cow manure, and two of decaying leaves, or rough vegetable mould, afford it the most acceptable medium of growth. Though the leaf-mould is not wholly necessary, yet it will ever be found, both in respect to the Auricula and Polyanthus, that wherever there occurs in the soil a little mass of decaying leaves or sticks, there the roots will be most numerous and vigorous. Such practical hints or natural tendencies the observant florist ever treasures up, and it is by their observation and application that he becomes a more successful cultivator than his fellows. The proper time for planting is the last week of July—the end of their period of summer's rest, and when the old plants have attained such maturity and size as to admit of easy division. It is most essential that this period of planting be strictly observed, in order that the plants may have all the advantages of their natural autumnal growth, and thereby of becoming thoroughly established in the soil, before winter, thus ensuring a vigorous bloom in the spring, as well as obviating all chances of disease or death, from the severity or changes of weather in their winter season of rest. The plants should be carefully divided with a sharp knife, or neatly detached with the fingers, if nearly separated, but not slit or torn up; though such injurious and unscientific practice has, by many, been recommended, on the whimsical theory that

a lacerated wound in the Polyanthus or Auricula is sooner healed than an incised one! Lacerated wounds, both in plants and animals, are most dangerous. The main, or tap root should be shortened to within an inch of the insertion of the leaves, that a few of the young and more vigorous fibrous roots only be retained. The method of planting is perhaps the most important feature in the culture of the Polyanthus. It must be set deep. Having made a hole in the earth with the trowel, place the plant so deep therein that the very crown of the root be covered one inch with soil, for it is from this upper part that the young roots proceed, and hence it is essential that they at once meet with earth in which to grow and ramify. If this condition be not afforded, it will either dwindle or damp off, from the perishing of these young roots, or we shall witness a stunted plant, with a bunch of curly fibres, struggling to reach the surface of the earth—a very common sight in a neglected border of Polyanthus. It may be planted in rows, and every way about eight inches apart, and having thoroughly watered the bed, the plants require no further care whatever; all covering or protection in the winter being wholly unnecessary or hurtful. In the spring, the surface of the beds and around the plants should be made neat and clean, and when the flower-stems have risen, and the flowers are about to expand, they should be protected, by an awning, from the rain and sun, or the freshness and richness of their colours will be deteriorated. If required for the purpose of exhibition, or for ornamenting a cool, airy greenhouse, or even a cold frame, they may be readily taken up, without risk or injury, with a ball of earth, and put into common sized Auricula pots, being, at the same time, liberally supplied with water; when no longer required for such purposes, they must again be returned to the bed. When the bloom is over, and during the summer months, the plants still require no care beyond the ordinary attention of keeping them clean, and the earth moderately moist, by occasional watering; for although, from the proper situation of the bed, the sun is not permitted to shine thereon, yet,

if the Polyanthus be subjected to drought, it is extremely apt to become infested with the red-spider, as indicated by the destructive yellow mottling of the foliage. Such, then, is the simple treatment required by the Polyanthus—a flower which is endeared to us as being associated with our earliest recollections of a flower garden, and which recalls to us all the joyous existence of childhood. Let us cherish this flower, for, in imagination, it gently leads us back to that first period of our lives when the heart was happy, because it was innocent. Let us cherish it, for it admonishes us that innocence and virtue are ever the requirements for happiness. Let us cherish it, for it tells us of the stealthy flight of time, and of the lapse of the young heart's feelings, how our childhood glides on into age, and how its innocence is overtaken of evil!”

Culture of the Tea Rose *Isabella Grey*.

SEVERAL other correspondents having solicited information with regard to the cultivation of the new Tea Rose *Isabella Grey*, I would give the following results of my experience. I purchased, in April, 1858, a plant of this Rose, which, when I received it, was very small, being little thicker than a darning needle. Being quite a novelty to me in the Rose tribe, I had to think by what means I should treat it, so as to get it to bloom. I first (as with all other plants I purchase from a nursery) took the plant out of the pot, and shook all the soil from the root, then washed it, and planted it in some well decayed loamy turf, with about an inch of old frame manure over the crocks, and after making ten or twelve inches of wood, I repotted into a five or six-inch pot. I then allowed it to make four shoots, about fifteen inches long; this it had done by the middle of June. I then took the plant out of the greenhouse, and put it on the side of a walk,

where it got the sun all day, and it did not make above two inches more wood all the summer. I never gave it any water at all after it came out of the greenhouse, and the wood matured so hard that it was with difficulty I could cut it. About the beginning of October, I took it into the house, and it remained in the same pot until the beginning of February, 1859, when I repotted again into a nine-inch pot, in some rich loam and old frame manure, about one-third of the latter, and two-thirds of the former. This done, my efforts were soon crowned with success, for it was not long before it showed thirty-three bloom buds. Thinking this too many, I disbudded down to twenty-two, which have all bloomed very fine, being of a bright golden yellow, full, and very fragrant. If the petals were a little stouter, it would be a most magnificent Rose. The greatest drawback, however, is the petal, being serrated on the edge.

G. FREARSON,

Ison Green.

Do Hollyhocks degenerate?

A PREVAILING error with many florists is that if they were to buy good Hollyhocks, they would deteriorate in a few years. This is urged, in many cases, as a reason for the non-cultivation of the Hollyhock. There are few flowers more easily grown. We are rather partial to the flower, and have, for some years, cultivated a goodly number. We had a bed last year, the admiration of all who saw it. It contained some roots of Hollyhocks which have been standing seven years, and last season they flowered quite equal to when just planted, and we believe they will do so again this season. It is one of the finest show flowers in existence. When was there a finer show than when the National Carnation and Picotee Society held their exhibition at Derby, and when Mr. Chater ex-

hibited his wonderful productions. People often tell us that they have had good Hollyhocks, but now they have all become single. They never were good, or they would not have changed. We have grown Hollyhocks for nearly ten years, and never found a good flower to deteriorate. A pod of seed, from Gibbons's Black Prince, was gathered by us in the autumn of 1856, and some in 1857; in the autumn of 1858, out of twelve plants, four were like the parent, two more were black, but inferior, two were creamy white, but one inferior, one was a good yellow, and the other two were yellow, but worthless. So it matters little about the seed; it will sport. But, depend upon it, that plants from cuttings or from parted roots will never deteriorate, if planted in at all ordinary soil. The great improver of the Hollyhock was Mr. Barron, from seed of his own saving. We should say plant in September, or October, or March. We are sure that anyone raising a small collection from seed will find a great many new varieties, which, at all times, will be found, even if not quite first-rate, useful appendages to the garden or shrubbery. We are induced to make these remarks from the fact that the writer in a certain work is endeavouring to prove that Hollyhocks do deteriorate.

Shrubby Flowers.

AT the time when so many shrubberies, cemeteries, &c., are fashionable, it may not be amiss just to give the names of a few of the best varieties. Of course Evergreens are not included, as that will form another paper. I have at the bottom of my garden a shrubbery, and will enumerate the varieties grown. My first favourite is the double white and red Hawthorn, full of flowers in May, perfuming the atmosphere for some distance; then there is the single red, a very pretty thing, but not equal to the double varieties.

At Bourne, a brother of mine has a pair, which he has trained on the lawn in the shape of a cross, and I assure you they are very beautiful—one red, the other white. I like the red best, being the most free bloomer; then there are the Lilacs, so well known that I have no need to describe them; the Syringa, or, as you botanists would term it, *Philadelphus coronarius*, which, one of the visitors coming to my lady's garden, said smelt like Cucumber. I can't say that I could find any resemblance, but I should suppose she was an admirer of Cucumbers, and so thought she was paying it a compliment, for most assuredly it has a very pleasant scent. The Guelder Rose, or Snowball, or *Viburnum opulus*, known to everybody; the *Laurustinus*, another of the *Viburnum* species; there are also several pretty varieties of *Altheas*, *Heaths*, the Broom, both yellow and white, being perhaps (if they were not so common) the handsomest shrub we have, hardy *Azaleas*, *Rhododendrons*, some species of the *Honeysuckle*, the *Laburnum*, with its corymbs of bright yellow flowers, the double yellow Gorse, and the Wallflower. At the back of my shrubbery, I have *Acacias*, flowering Almonds, both of double and single varieties, Horse Chestnut, pink and white Mountain Ash, Copper, Beech, Tulips, trees, &c. A well kept shrubbery is a very great addition to a garden, especially if neatly planted with hardy Ferns, Annuals, and herbaceous plants, intermingled with rock-work and rock-work plants, and in the centre of my shrubbery, which is rather a large one, I have a rustic summer-house, and in front of this a fountain, and I assure the readers of the MIDLAND FLORIST that my shrubbery is one of the prettiest places in the country.

JOHN THE GARDENER.

Cuttings.



LOISEAN recommends that the usual method of striking cuttings should be altered. When, he observes, a cutting is put in perpendicularly, the sap, whose natural tendency is to rise, is

expended in pushing forward a new bud instead of forming a root. But if a cutting is laid horizontally, or even with its lower end higher than the upper, that is not the case; the sap prefers to move towards the higher end, or, at all events, is evenly distributed between the two extremities. This causes the callus to form so rapidly that if the cuttings are put into a warm place eight or ten days are enough to secure its formation, or even that of roots. Autumn-struck cuttings, taken off a little before the sap ceases to move, and treated in this manner, form their callus so quickly that they are ready for planting out before winter. In winter, it is necessary to put in cuttings in a gentle heat (*une couche tie*de), or beneath leaves deep enough to keep out the frost, and even then a callus will be found to have formed by spring-time. As for cuttings taken off in May, they must have more heat, such, for instance, as is afforded by a hotbed, or a hothouse, and they will then take, in many cases, in a few days.

Vicar of Radford v. Anastasia.


IN answer to the question inserted in a previous number, "Is the Vicar of Radford a fine strain of Anastasia," my reply is that the Vicar of Radford was broken by Mr. John Mart, from a fine rose breeder given to him by my esteemed friend, the Rev. S. Creswell, of Radford Vicarage, about two years ago. It was exhibited for the first time at the great National Tulip Show, held at Birmingham, in the year 1852, when it won the first prize in the class of flamed rose Tulips. It is considered one of the finest flamed Roses in cultivation, every bloom being worthy of a place in a pan of six. It has been thought by some to be a fine strain of Anastasia, but this is not the case, as Anastasia was broken by Mr. Gibbons, nearly twenty years ago, and never produced such fine blooms as the Vicar of

Radford. Anastasia, flamed rose, has been grown and shown for sixteen years, but I venture to say no one ever saw a flower of that variety which was a decent pan flower. Its marking is always very bad on the margin. For my own part I have long since thrown it away. Seeing the Vicar of Radford much like Anastasia in colour, but a far superior thing, and being so often disappointed with Gibbons's Anastasia, I at once substituted the Vicar of Radford.

W. R. LYMBERY,

St. Ann's Hill, Nottingham.

Gardening Gossip.

 I HAVE been myself, on a small scale, a practical gardener, and I know that the progress of farming is built on the experience of the gardener. Now there are three important things which you all know must be done, if you wish to succeed in farming or gardening—make your land dry, let it be warm, and keep it clean. There is a plant called Prime Minister, and I should like to hear what Lord Derby would say to this description of Lord Palmerston, or vice versa—"orange crimson mouth, fine form, excellent spike (whatever that is), and a good bedder." Then I find, in the description of a highly respectable gentleman, who may bring an action for damages, Lord Raglan, who is described as having a fine eye, not constant, and with rather loose habits. There is another gentleman who is connected as the head with almost all the religious and philanthropic societies in London. I mean the Earl of Shaftesbury. No more worthier man is to be found, but he is described here as a fine plant, showing the white of his eyes. With respect to the ladies, I don't think they ought to be exposed in this way. There is the Princess Matilda, whoever she is, has a rosy blush, and is very free. One lady, whose name I shall not give, is celebrated for her beautiful white neck. Then there is Mrs. Church,

she has a full throat, great constancy, and may be depended upon. The ladies are the great patronizers of gardening, and they could not bestow their patronage on anything better. Now there is one subject I wish to make mention of, and that is when people employ a gardener, and no one employs them except persons of property, I hope the gardener will say, "We have a society, and I hope you will, in addition to my salary, contribute a guinea a year to the funds." If the gardener asks his employer to contribute a sum that is not to go into his own pocket, but to help to provide for his brethren, in their old age, he will suffer no depreciation, and find very few to refuse.

MR. JUSTICE HALLIBURTON,
Gardeners' Society's Dinner.

Impression of the National Rose Show.

SIR,—Being a great admirer of Roses, and (a very humble) amateur grower of them, I went yesterday to the Rose Show, at Hanover-square Rooms, expecting a great treat. Well, being a business man, of some experience of life, by fighting hard, my time was not lost, but as to pleasure, that must very nearly be put aside. I should say I went in with the mob, having others to pay for, and so obliged to remember my means. It was a heated moving mass of people, in most admired confusion, the stream going one way, and the tide the other. You may reply, I spent only a shilling, and had its worth. No, sir; the crush made the atmosphere so destructive to flowers, that what was hardly fought for was not worth having when won, even to an amateur, who went to learn and to improve his stock. Then there was a very noisy band of music which martyred every unfortunate man and woman's ears; it was perfectly distracting. Now I must insist that such an exhibition, whether for pleasure or profit, and I as-

sume it was for both, must have abundant space, cool ventilation in plenty, a good subdued light, and freedom from distracting sound; all this a tent, and nothing but a tent, affords. If there must be music, let it be a space apart, for I love music, but this, sir, is a place for quiet inspection, discussion, and enquiry. The very thought of what it should have been makes one almost cry at what it was—a vast collection of beautiful Roses sacrificed to a grand mistake. It may be the most convenient spot, yet, for the love of Flora, let a voice from the mighty crowd cry out. After this, the same voice, in the name of all, would say a word about the Roses, as far as could be judged. Amongst summer Roses, Paul Ricaut, Charles Lawson, Coupe d'Hebe, Ohl, Kean, Cynthia, Transon Gombault, shone out. The last two are deserving of especial favour from an amateur. The judges have formed and published their just opinion of rank in merit of the growers, but while, to a common observer, all were beautiful, and two or three specimens in each collection might claim preference over others, very great praise is due to Mr. Tiley, of Bath, for his compact stands of the choicest Roses, in the highest perfection. Almost every trio was a triumph, and amongst them may be named of hybrid perpetuals, Gloire de Vitry, Auguste Mie, Comtesse Cecil, Chabillard, Mere de St. Louis; of tea scented, Ophirie and Vicomtesse de Cazes, two kinds seldom seen good, and not to be seen good elsewhere yesterday; they were lovely; Adam, Devoniensis, Souvenir d'un Ami, and others, of Paul, Grandiflora (tea), of Hollamby and Madame Recamier (h.p.), of Fraser, were also splendid. But, to speak more generally, the aggregate palm was due to the following, in hybrid perpetuals:—Louise Peyronny, Madam Hector Jacquin, General Jacqueminot, Noemi, Le Lion des Combats, Cardinal Patrizzi, and Mrs. Rivers; Souvenir de Leveson Gower and Caroline de Sansal were also very fine. As to Prince Leon, Louis Chaix, Lord Raglan, and Duchess of Norfolk, they never can become general favourites, although in a collection they ought to be, having very high merits, peculiarly their own, either of colour or form. Two

good Roses, Duchesse Montpensier and Souvenir de la Reine d'Angleterre, were either absent or lost to sight in array of beauty. There was much enquiry for Isabella Grey, amongst the admirers of the tea scented charmers, but enquiry and search were alike vain. That fine Rose, Eugene des Gaches, was also wanting. In this class, Souvenir d'un Ami and Adam of the blushing, and Cloth of Gold and Narcisse, of the clear yellow, were ever conspicuous. I hope you will use your influence to secure better arrangements another year, when it may be both possible and even comfortably easy to speak to an exhibitor and to obtain a catalogue, which was out of the question on the twenty-third, after four o'clock.

C. E.,

The Orchard, Upper East Sheen, Surrey.

National Carnation & Picotee Society.

THE local committee beg to report that the majority of the returns they have received from the cultivators of the Carnation and Picotee, respecting the probable alteration of the date of the exhibition, were in favour of the day originally proposed, viz., Wednesday, August 3. Accordingly negotiations were entered into with the Midland Railway Company, in the hope that they would still be able to run special trains on that day, even if less towns were accommodated than could be wished. Finding this to be impossible, however, arrangements have been made for holding the exhibition on Thursday, August 4. From all accounts received up to the 23rd instant, everything promises well. The schedule is not yet out. We hope that any person intending to subscribe will at once signify the amount to the secretary, Mr. J. Walton, of Chesterfield. Special trains will run from Derby, Nottingham, and Sheffield. The subscription list amounts to thirty-four pounds nine shillings and sixpence.

Cultivation of the Polyanthus.

I MUST confess to having much more confidence in cultivating the Polyanthus than in writing an article for the press. But if any remarks, given in my plain humble way, can be found at all interesting to the readers of your widely-extended and justly-esteemed useful publication, I shall be most happy in communicating all and every particular connected with my simple mode of cultivation and management, feeling, as I do feel, most anxious to see this much neglected, though deserving flower brought into a more extensive and healthy state of cultivation. I regret much to hear such repeated complaints of failure in the cultivation of the Polyanthus, which I find much easier, and much less trouble and expense than most other florists' flowers. Three things necessary to the insurance of success are, first, the purchase of good plants, from a healthy stock; second, proper soil and situation to grow them in; third, regular attention;—the latter being required to a much greater extent in pot than bed cultivation, therefore I should not advise those who are about to commence, or whose gardens are far from home, to attempt growing them in pots. But to commence forthwith, as there is no time for delay, select a spot open to the sun throughout the winter, and free from overhanging and drip of trees, mark two feet in width, any length required, allowing eighteen or twenty inches for path—one end of the bed to point east, inclining a little south, the other end will be, of course, west, the same inclination north, which will give the required aspect. Measure the length marked out, and procure some fir poles, four inches thick and five feet long, have them sawn down the middle, and thus each will make two posts, one of which will be required to every three feet your bed is in length, and one over. Provide also some strips of red deal, one inch thick and two broad, for edging the bed in front and at both ends; and a few stakes, one foot long and two inches thick, to be driven down about three feet distant, to the extent of the bed, and the strips

nailed on outside, next the path; also four pantile laths, the full length required from end to end. If the ends of the posts, stakes, and strips of deal are brushed over with hot gas tar, mixed with one-fourth of linseed oil, a few days previous to being put down, they will last much longer. All being in readiness, stretch a line, three feet six inches high, from end to end, to the extent of the back or south side of the bed; then put down the posts, till the tops are even with the line, and fasten them firmly; then nail thereon the pantile laths, commencing six inches from the surface of the bed for the first, and the rest following with equal space to the top. Dig out all the soil a foot deep, clear and regular, and put in a layer of any decayed vegetable refuse, such as hedge clippings, rotten sticks, or the like, that will admit of pressing down equally all over with the back of the spade, till about three inches thick. Upon this a moderate quantity of soot should be sprinkled regularly all over with the hand. Then a stratum of well-decayed cow or pig manure, the same thickness as the vegetable refuse. This also must be sprinkled with soot, but very slightly, or it will injure the plants. It is to prevent worms rising, which often make sad havoc in a newly-planted bed, by rooting up the plants and dragging them into their holes. If on cold clay land, use sheep manure, mixed with one-fourth of sandy turf. Fill up the bed to within an inch of the top edge of the strips (which may now be put down for border or edging for the bed) with fresh fibrous loam that will easily divide with the fork or hand; then rake all over carefully, and put on a riddling of nice light soil, free from manure, one inch thick. This completes the bed ready for planting, which must be finished by the end of this month. Three plants in a row, across the bed, and eighteen inches between the rows, will be quite thick enough. Betwixt every two rows may be planted the double blue and red Hepatica, alternately with *Gentianella* and double Primroses. In February, a root of the red and white Turban, and *Ranunculus* in varieties may be dibbled in betwixt every plant. These I find to bloom much better here than in open exposure. When these,

that is the Turbans and Ranunculuses are past flowering, they must be taken up, and a few Ten-week Stocks put two in a row, about three feet apart. They will do no harm at this season of the year, but rather good, by keeping the plants cool. As it will be necessary for the bed to be made much larger than will be required for the few Polyanthuses got in the first season, this will be found a desirable plan for making use of spare room, and will render the bed gay and attractive during the hot summer months, and thereby draw attention towards the Polyanthuses, so essentially necessary in summer, with respect to watering, &c. It will be advisable to nail some calico, canvass, or matting, from the top lath to the bottom one, to shade the plants till they have taken root. Two or three weeks will be sufficient, when the shade may be taken off, and some good strong plants of the double flowering Currant planted at the back or south side of the laths, two feet distant. Blooming with the Polyanthus, it adds much to the beauty of this early "treat," affords good shade in summer, and losing its foliage in winter, gives access to the sun's rays, and is in all respects the best thing I know of for the purpose. I think I have now shown that the Polyanthus border may be rendered as ornamental and attractive as any part of the garden; and should these few remarks be found worthy of insertion, I shall endeavour to give a few more next month.

S. HAMMOND,

New Radford.

Recent Exhibitions.

NOTTINGHAM HORTICULTURAL SOCIETY.—This society held its first exhibition in the Mechanics' Hall, Nottingham, on Wednesday, May 25th. The show of florists' flowers, stove and greenhouse plants, fruit and vegetables were good. The Tulips of the Rev. S. Creswell, Mr. Hedderley, Mr. Lymbery, and Mr. Houghton were prominent.

The plants of Sir Thomas Parkyns, were also very fine, and took the first prize. We, however, sadly missed, as did almost every one, the splendid specimens of J. I. Marfleet, Esq., of Winthorpe Grove. These were for many years past one of the mainstays of the exhibition, and the non-exhibiting of the collection, perhaps, one of the best in the kingdom, is a loss felt by every florist who has seen them. The Ferns of Mrs. Lowe, and the Lycopodiums and plants of variegated foliage were splendid. The vegetables too were fine; some Calceolarias, Petunias, and Pelargoniums, also possessed considerable interest. We shall give the awards of the judges in a future number. The fine band of the South Notts. Yeomanry Cavalry was present.

THE ROYAL BOTANIC SOCIETY held its exhibition in the Regent's Park, and was remarkably well attended. In stove and greenhouse plants, *Dracophyllum gracile*, loaded with heads of small white blossoms, *Allamanda*, *Dipladenia splendens*, *Ixora coccinea*, *Phœnocomma proliferum*, *Stephanotus floribunda*. There was also one of the willow-leaved *Ixoras*, with heads of showy orange coloured flowers, and decidedly a very fine novelty. The best Azaleas were Ivery's Gem and Extrani, pink. Roses, in pots, were only indifferently shown; we must, however, make one exception in favour of Charles Lawson (something after the style of Coup de Hebe); of cut Roses, the best were Glorie de Dijon, Madame Willermorz, Lord Raglan, General Jacqueminot, Paul Ricaut, Madam Vidot. Mr. Turner, and Messrs. Dobson and Son, as well as Mr. Foster, and Messrs. Henderson and Mr. Veitch, showed some nice things in the Pelargoniums. In fruit, Grapes were good, especially Black Hamburgh, Black Prince, Muscadine, Grizzly Frontignan. Peaches: Violet, Native, Bellegrade. Strawberries: British Queen, Keen's Seedling, Myatt's Surprise, Sir C. Napier, and Sir Harry. Providence Pineapples. Lee's Perpetual, and Brown's Turkey Figs, and some very fine Melons were also produced.

NOTTINGHAM HORTICULTURAL SOCIETY. — The second exhibition of this society was held at the Exchange Hall, on June 29th. The plants of Sir Thomas Parkyns were good, especially Croton Variegata, Allamanda, Cathartica, Erica, Cavendishii, &c. — Baillion, Esq., of Nottingham Park, was second. In Fuchsias, Mr. Beard was first, and Mr. Baillion also exhibited some good specimens. Roses were well exhibited, but as we have little room except for a passing notice, we must defer giving the names until next month. There were also some good stands of Pinks, and cut flowers of the latter, a splendid box by Mr. Mitchell, gardener to W. Boden, Esq. The vegetables were also good. Oscar, the new Strawberry was again shown, a dark, well-shaped, and good sized fruit—reared by W. F. N. Norton, Esq., of Elton; the foliage of this Strawberry is remarkably strong. Mr. Ingram, gardener to His Grace the Duke of Rutland, was principal censor.

Midland Horticultural Society.

THE exhibition of this society was held in the fine grounds of the Arboretum, Derby, on Tuesday, May 31st. We started from Nottingham, from which town a goodly number took their journey. On arriving at the Arboretum, we were struck with what was called the crystal palace. How a building with one side brick, two-thirds of the roof slated, and a part of the front stone, came to be termed a crystal palace, we know not. Of its architectural beauties we cannot speak; we don't know who drew the design; we should suppose that it was done by the gardener or some one of that sort, for the union of pointed and round architecture together is anything but good. However, when we got inside, we found that it really must have been the gardener, and really a clever man who designed the building, for we have not the least hesitation in

saying that it is one of the finest buildings for holding a floral exhibition we have in the country. No cross-lights—not too much, not too little; a nice light from the top, a nice light from the side, and a nice light from the ends, although this should have been shaded. Everything inside too, the stages were nicely covered with cloth. Plenty of room for promenading—plenty of space for the flowers. The only thing that could be altered, besides obstructing the light at the ends, and we hope the committee will follow our suggestion, was that the back wall should be coloured. We say a reddish chocolate, or a salmon tint—another gentleman with whom we came home, suggested green, while a third thought white. However, the present (brick, and bad brick, too) colour is anything but suitable. We can do no other than praise the inside of the building. The outside we must condemn. It is long, with a transept in the centre, much after the style, though lacking the grace of the old crystal palace. But we will leave the building and turn to the flowers. The Achimenes of Mr. Jackson, were beautiful, while the stove plants of the same gentleman, termed the Kedlestone collection, and which are the property of Lord Scarsdale, were indeed very fine. The best were *Azalea indica alba*, *Ixora javanica*, *Chorozema*, *Cordata polygala*, *Franciscea eximea*, *Pimelia mirabilis*, *Ixora coccinea*, *Maxillana aromatica*. A fine Orange tree, with large fruit, was also exhibited. We cannot say we quite agree with the judgment of Ferns. Mr. Jackson was placed first, Mrs. Lowe second; but it might be right, although the one was taller than the other, and so could not be seen well. Mr. Porter exhibited four noble Cucumbers from one plant. Mr. Beeston also sent a brace of fine ones; and Mr. Jackson's Strawberries, British Queen, were extremely inviting. There were also Normanton Wonders, and Besspool Apples, in fine condition, otherwise the vegetables were nothing uncommon. In the Tulips a list of which will be published, the most notable flowers were—Dundas, Triomphe Royal, Polka, Augustine, very fine, Britannia (byb.), Royal Sovereign, First-rate,

or Sarah, Forman's Royal Sovereign, Heroine, Duchess of Sutherland, the best flamed byb., Violet amiable, Gibbons' Seedling, a fine flower, heavy feathered byb. was decidedly the best flower in the room, Great Britain, (fea. biz.), Seraph (byb. breeder), of the Rev. S. Creswell, Mr. Worthington, new broken, flamed Rose, is of good colour, and will be a fine flower, Parkinson's No. Thirty-four, (biz. breeder), Anastasia (breeder), were also worth attention. In Pansies, Mr. R. R. Oswald's pan, of Birmingham was unique. The best Pansies exhibited, were Mrs. Dodwell, yellow self, Cream of the Valley, white self, Mrs. Hope, yellow ground, Royal Visit, Jeannie, Miss Talbot, J. B. Gough, Countess Rosslyn, Fair Maid (Whittingham), General Williams, Blink Bonny, Triumphant, Louisa, and Norwich. A device in flowers (success to the society, was very nicely done) as was also a vase of flowers by Mr. Cooling. The Lycopods of Mr. Jackson were the finest we ever remember to have seen, either in town or country. They were named *Galleottianum stoloniferum*, *Unequalifolia*, *Mertensu*, *Umbrosum*, variety of *Stoloniferum*. The band of the Midland Railway Company were in attendance, as was also a German street band of four performers (fetched out of the street we suppose for the occasion.)

Roses at the National.

SIR,—Thinking that a list of what I consider to be the best Roses shown at the National Rose Show (which was a magnificent spectacle) would be interesting, I herewith send you the names of the gems of the exhibition, Charles Lawson, Madame Masson, Boule de Nanteuil, Jules Margottin, Solfaterre, Baronne Prevost, Kean, Omar Pacha, Devonienis, Lord Raglan, and Coup d'Hebe. Madame Vidot, Duchess of Norfolk, Madame Heraude, Madame Hector Jacquin, Victor Trouillard, Duchesse d'Orleans, Comte de Nanteuil, Cardinal Patrizzi, Madame Place, Lady

Stuart, Gloire de Vitry, Madame Knorr, General Simpson, General Castellane, Gloire de Parthenay, Panachee d'Orleans, Madame de Cambacères, Prince Leon, Geant des Bastilles, Mathurin Regnier, Lord Raglan, Caroline de Sansal, William Griffiths, Noemi, Jules Margottin, Madame Rivers, Triomphe de l'Exposition, Louis Peyronny, Auguste Mie, Baronne Prevost, Lion des Combats, General Pelissier, General Jacqueminot, and Joan of Arc.—Gallica: Transon Goubault, Cynthie, Boule de Nanteuil, Colonel Coombes, Latour d'Auvergne, Prince Regent, Dido, Ohl, Kean.—Bourbon: Acidalie, Souvenir de Malmaison, Coupe d'Hebe.—Hybrid China: Brennus, Chenedole, Victor Hugo, Madeleine, Paul Perras, Madame Rameau.—Tea: Souvenir d'un Ami, Narcisse, Gloire de Dijon, Madame Willermoz, Bougere, Devoniensis.—Blush: Madame Vidot, Madame Rivers, Duchess of Orleans, Auguste Mie (deep blush), Caroline de Sansal, and Mathurin Regnier.—Scarlet or dark crimson: Lord Raglan, General Jacqueminot, Lion des Combats, Gen. Castellane, Prince Leon, Paul Ricaut, and Sir John Franklin.—Rose: Colonel Rougemont, Madame Hector Jacquin, Jules Margottin, William Griffiths, Gloire de Vitry, Prince Imperial, coarse but showy; Coupe d'Hebe, and Paul Perras.—Yellows: Cloth of Gold, some tolerably fine blooms of which were exhibited; Decazes, and Persian Yellow.—Of whites there is still a deficiency. The best are Dr. Henon, Princess Clementine, the old white Provins, Louise Magnan, and Beaute de Melan.—Stripes: Panachee de Orleans and Cillet Parfait.

Notes and Queries.



LONDON correspondent asks some particulars about the Strawberry Oscar, named last year in the *Midland Florist*.—STRAWBERRY OSCAR.—This Strawberry was raised and exhibited, we believe, for the first time last season. The Nottingham Horticultural Society gave it a certificate, and was also favourably noticed by the Horticul-

tural Society. It was raised by Mr. Bradley, gardener to W. F. N. Norton, Esq., of Elton, Notts. Fruit large, ovate, frequently flattened on the sides, or cockscomb-shaped, shining dark red, flesh firm, dark red, flavour superior, remarkably sweet, with a brisk aroma. We have ourselves a new variety, of which we gathered a nice dish of twenty berries, this day, June 16th, within two miles of Nottingham, from thirteen plants, all our stock. They averaged half-an-ounce each, and if worthy, another season, we will place it in the hands of some one to grow.

HOT WATER.—D. W. J.—A fact of natural science will best answer your query. All liquids expand when heated, and contract when cooled. This is a general fact with which everyone is familiar. Water is not an exception to this. A gallon of boiling water will be less than a gallon when it becomes cold, and a gallon of cold water will be more than a gallon when it is heated. Water is, therefore, rendered more dense, that is to say, heavier in a given bulk, by cooling it, and less dense, that is, lighter in a given bulk, by heating it. Our correspondent will now be conversant with the principles on which his greenhouse is heated. Don't buy Tulips of such a man—nothing but a swindler.

HOLLYHOCKS.—W. W., W.—Sow your seed the latter end of September or the beginning of October, in pans, and keep in greenhouse or cold frame, until spring, when plant out in good loamy soil, and the majority of them will bloom the next season. Your seed, sown in March, will certainly not bloom until next year. If the plants would have bloomed this season you would have seen the spikes ere this.

T. W. T.—We should make a Strawberry bed in August. The plants are to be obtained at any respectable nursery. Send your address and we will tell you where to get some excellent ones. We should recommend you Sir Harry, Filbert, pine, Eleanor, late, Myatt's British Queen, Comte de Marnes, and Keen's Seedling. Twenty-five of each of these would not cost a deal, and would make you an excellent bed.

VINES.—Will you be kind enough to give me simply the names of what you consider to be the best twelve Vines in present cultivation? I am just building a large vinery, and have got one of Mr. Jones's cannon boilers, which works admirably.—J. W. W.—The best Vines are Bowood Muscat, Stockwood Golden Hamburgh, Black Hamburgh, Black Frontignac, Cannon Hall Muscat, and Muscat of Alexandria. These are all we grow, and therefore all we shall speak of, but perhaps some correspondent will answer J. W. W.'s query. We have not the least doubt about your being pleased with Jones's cannon boiler, everybody is.

J. W. W.—The Ivy you write about, or rather you have heard about, is at Montpellier. The base was six feet in circumference, and it was blown down in the year 1829.

Opinions of Flowers.



WE have received from Mr. Frost, gardener to J. T. Edge, Esq., of Strelley Hall, a magnificent Cauliflower, raised from some seed of the Mammoth variety. When received, it weighed, partly dressed, nearly fourteen pounds, and when dressed for the table, exceeded twelve pounds.

J. R.—Your seedling Tulip is nothing more than a good strain of Polyphemus. You must certainly have been *gulled* if you have bought it for a seedling, and paid the price you say. Young Tulip growers should be careful.

J. W., *Roydon*.—Your breeder is not what it should be. No. 27 breaks nicely. No. 44 is also a pretty feathered flower. You ask the value. A gentleman to whom we have shown them, offered one pound ten shillings for the pair.

Calendar of Operations.

A ZALEAS.—The whole collection ought now to be fresh potted. Syringe heavily overhead twice or thrice a day, according to the state of the weather. Keep a nice growing moist temperature. Shade until the roots have taken hold of the fresh soil, and then discontinue it, for they bloom more by having free access to the sun.—E. CLEETON, *Dumbleton, near Evesham, Gloucestershire*.

EPACRISES.—These ought to be standing in a sheltered situation, out-of-doors, and carefully looked to, to see that none suffer for want of pot-room or water.—E. CLEETON, *Dumbleton, near Evesham, Gloucestershire*.

FUCHSIAS.—If the directions given from time to time have been followed, the first lot of plants will be in full bloom. Nothing will shorten their beauty sooner than being allowed to get dry, from which cause they lose much of their foliage. Watering must therefore be attended to; and if it is desirable to prolong the bloom, the bees must be excluded, and the plants carefully shaded. Those for blooming late must receive their final repotting at once.

GREENHOUSE. — Hard-wooded plants of most sorts still requiring a shift must be attended to immediately; those which having been shifted some time back have made thin growth should now be exposed to all but the most powerful sun in

order to harden the tissues and induce a free flowering habit; most of the large plants of Chinese and Indian Azaleas may have nearly free exposure to the sun, but should be protected from heavy rains. This is a good time, when water requires to be given so often and abundantly, to ascertain the state of the drainage, and if defective to remedy it, for no plant with a defective drainage can ever be safely wintered. Look to the state of young specimen plants in cold pits, keep them more shaded than older plants, at the same time let them be sufficiently exposed to harden the growth and prevent drawing; most of the foregoing remarks will apply to Heath's, young plants of which growing into specimens should have their final shift for the season, and see that they are well trained down and luxuriant growth stopped; observe that most kinds of hard-wooded plants are now advancing towards a state of rest, and the tendency of all operations connected with them should be to ripen the wood and produce maturity of growth. Pelargoniums which are past flowering should be placed out of doors in a situation exposed to the full sun and very little water given; this will thoroughly ripen the wood and throw them into a dormant state, when they may be closely headed back. Encourage the growth of the later stock for autumn blooming, expose them to the influence of the sun, but give them plenty of water and liquid manure. Give the seedling plants of Chinese Primroses another shift and plenty of room in a cold pit, shade from hot sun, and be sure that the drainage is perfect. Cinerarias which are past blooming should have the tops cut off and be placed out of doors on coal ashes to form another crop of suckers. The best impregnated Calceolaria seed may now be sown in shallow pans and kept in a very cool place in a pit; this plan of sowing early and getting good plants established in pots before winter, is very preferable to keeping old plants; seedlings are invariably more healthy and robust in habit, and if carefully impregnated they will produce very effective plants for decorative purposes, although perhaps not up to the florist's mark of perfection. The present is a good time to go over the stock of pot Camellias; give a shift to such as require it, but never a large one, as they are better with the roots rather cramped than otherwise; it is very important that the drainage should be perfect.—*James Carter's Gardener's Vade Mecum.*

HEATHERY.—Now is rather a trying time for this fine tribe of plants, still, by a judicious use of the shade and plenty of water, they can be brought through a hot summer without much injury, but the shade must be used with caution—only when the sun is hot, but this must depend on the aspect of the house, or the situation out-of-doors. Practice has taught me that they must be kept from the hot sun in July, from nine till four. See that the sun does not strike on the side of the pots, through the uprights in front of the house. Where such is the case, place some protecting material on the sunny side of the

pot. About this time of year the Vestitas and a few others are subjected to the attack of aphides. Keep a watchful eye upon them, and when detected, take them to a pit or frame, or other structure, and give them two or three good fumigations of tobacco. This will be found sufficient.—E. CLEETON.

KITCHEN GARDEN.—Let there be now no delay in getting in the main crops of Broccoli, Winter Greens and Celery, if not done as recommended last month: plant out also a good bed of June-sown Cabbage: strew some salt over Asparagus and Sea Kale beds in moist weather; the former will also benefit by the application of guano water: keep up successional sowings of Lettuce, Radish, Spinach, and Turnip; also another sowing of Endive for the main crops: examine the state of growing crops generally: apply water wherever necessary, particularly to Celery; keep the earth constantly stirred about and weeds destroyed: nail up Tomatoes: sow a little more Cabbage for succession; this plan is far better than letting the old beds stand for second crop of "Sprouts" as they are called,—it weakens the ground too much: one more sowing of Peas may be made for the chance of a crop, but they must have good ground, be kept well watered, and when well up, the ground should be mulched on each side of the rows.—*James Carter's Gardener's Vade Mecum.*

PANSIES.—Young stock must be liberally supplied with water in dry weather. Few varieties, except dark selfs, will be anything approaching their true character. Little requires to be done, except making sufficient stock and gathering seed, which may be sown as soon as ready. Such seedlings as have not been bedded out, should be attended to at once that they may bloom in their true character through the autumn.

PELARGONIUMS.—Plants that have done flowering may now be allowed to have all the sun and air possible to ripen the wood and prepare them for cutting down, which must be proceeded with as early as possible. In cutting plants down see that they are perfectly dry, before using the knife. If the plants are wet when they are cut down they bleed, and this is often the forerunner of the spot. When the shoots are healed over, which will be in a few days, a little water may be given, just enough to moisten the earth, with a fine rose watering pot. The plants must be kept close for a few days to induce the eyes to break vigorously. As soon as the eyes are ensured, give abundance of air, but protect from wind and rain when necessary. The tops may be put in as cuttings, five or six in a pot, and placed in a warm house or frame; they will be found to strike readily at this season. Many varieties, hardly worth noticing in the months of May and June, will be now in their true character, while others are not so good. A few of the most certain varieties for May flowering, are given for the benefit of amateur readers. Admirable, Carlos, Conqueror, Beck, Gem of the West, Governor General, Lech, Lucy, Mr. White, Majestic, Rosamond, Sanspareil, Saracen, Una, and Wonderful.



AUGUST.

National Rose Show.

THE second exhibition of the queen of flowers took place at the Hanover-square Rooms, on June 23. There were exhibited sixty-eight stands, from all parts of England, some containing one hundred varieties, while none had less than twelve, so that some little idea may be given as to quantity. The quality was unexceptional. Among the new Roses (for I see you have already published the lists of the best old varieties), I noted Eveque de Nimes, bright crimson, of a good shape, Duke of Cambridge, bright red, good, a new Rose, shown by Mr. Standish, of Bagshot, Eugene Appert, of the Geant tribe. The petals, shape, and colour are undoubtedly good, and I quite agree with others in saying it is to be numbered among the best and finest Roses ever raised. No one will begrudge the addition of this variety, even though it will be rather dear at first. I have simply given the names of the first pan of flowers in each collection, as, if I had given the whole, a number of the MIDLAND FLORIST would almost have been filled.

AWARDS.

CLASS I, LETTER A.

1. Messrs. Paul and Son, of Cheshunt, with Paul Perras, Devoniensis, Jules Margottin, Pierre Jaussens, Crested Moss, Lamarque, Dr. Leprestre, Madame Laffay, Madame Place, Blairii, Triomphe d'Avranches, Solfaterre, Madeline, Souvenir d'un, Madame de Manual, Trauson Goubault, Raphael, Madame Pauline Labonte, Cardinal Patrizzi, Panache d'Orleans, Ohl, Narcisse, Triomphe en Beaute, Cynthia, Victor

Trouillard, Brennus, Cabbage Moss, Lord Palmerston, Madame Vidot, Mrs. Rivers, Prince Leon, General Pelissier, Colonel de Rougemont, Madame Ducherre, Madame Masson, Louis Peyronny, Souvenir de Leveson Gower, Duchess of Norfolk, Comtesse de Segur, Gloire de Dijon, Pauline Lanzezeur, Charles Duval, Joan of Arc, Madame Hardy, Comte Bourbet, Triomphe de Beaux Arts, Latour d'Auvergne, Paul Ricaut, Mlle. Therese Appert, Kean, Bougere, Triomphe de Paris, Laura Ramond, William Jesse, Baronne Prevost, Telemarque, Eveque de Nimes, Paul Dupuy, Adam, Bath White Moss, Cabbage Provence, Boula de Nanteuil, Baronne de Wassenaer, Madame Hector Jacquin, Duke of Cambridge, Alba, Queen of Denmark, Auguste Guinnoiseau, Lord Raglan, Gloire de Parthenay, Chenedole, Caroline de Sansal, Madame Zoutman, Madame Domage, Alba Felicite Parmentier, Gloire de Mosseuses, Souchet, Mrs. Elliott, Madame Cambaceres, Madame Willermoz, Marthurin Regnier, General Jacqueminot, Noemi, Triomphe de l'Exposition, Charles Lawson, William Griffiths, Geant des Batailles, Madame Hitz, Je me Maintendrai, Lafontaine, Louis Chaix, General Simpson, Madame Knorr, Dr. Dielthem, Dr. Juillard, General Castellane, Leon des Combats, Coupe de Hebe, Duchess of Sutherland, and Souvenir de Malmaison. 2. Mr. E. P. Francis, Hertford.

CLASS I, LETTER B.

Equal 1st. Mr. Cant, Colchester, with Joan of Arc, Boula de Nanteuil, La Ville de Bruxelles, Louis Chaix, Victor Trouillard, Gloire de Dijon, Prince Regent, Comte de Nanteuil, Triomphe de l'Exposition, Mathurin Regnier, Souvenir d'un Ami, Chenedole, Etendard des Amateurs, Mrs. Rivers, Gloire de Mosseuses, General Castellane, Triomphe de Paris, Ariel, Bacchus, Madame Cambaceres, Comte de Paris, Kean, Prince Leon, Pauline Lanzezeur, Madame Stolz, Paul Ricaut, Madame Bravy, Charles Lawson, Sir J. Franklin, General Jacqueminot, William Griffiths, Devoniensis, Emperor Napoleon, Colonel de Rougemont, Lafontaine, Julie, Duke of Cambridge, Madame Vidot, Prince de la Moskowa, William Jesse, Souvenir des Braves, Solfaterre, Souvenir de Leveson Gower, Caroline de Sansal, Lord Raglan, Madame Knorr, Madame Masson, Alphonse de Lamartin, and Madame Heraud.—Class I, letter B. Equal 1st. Mr. Tiley, Bath, with William Jesse, Madame de Cambaceres, Dupetit Thouars, Pius IX., Comte de Nanteuil, Mrs. Rivers, Jacques Lafitte, William Griffiths, Madame Knorr, Devoniensis, Gloire de Vitry, Souvenir de Leveson Gower, Baronne Prevost, Reine des Fleurs, Triomphe de Paris, Geant des Batailles, General Jacqueminot, Vicomtesse de Cazes, Caroline de Sansal, Madame Phelip, General Simpson, Pauline Lanzezeur, Eveque de Nimes, Comtesse Cecile de Chabrilan, Sydonie, Jules Margottin, Souvenir de Malmaison, Madame Domage, Alexandrine Bachmeteff, Louise Odier,

Mere de St. Louis, Gloire de Dijon, Noemi, Lord Raglan, Louise Peyronny, Madame Masson, Acidalie, Duchess of Sutherland, Solfaterre, Prince Leon, Mathurin Regnier, Paul Ricaut, Auguste Mie, Mrs. Bosanquet, Lady Franklin, Cardinal Patrizzi, Triomphe de l'Exposition, Augustine Mouchelet, Madame Laffay, and Madame Vidot. 2. Mr. C. Turner, Slough. 3. Mr. Hollamby, Tunbridge Wells.

CLASS I, LETTER C.

1. Mr. Fraser, Lea Bridge-road, with General Jacqueminot, Jules Margottin, Lord Raglan, General Castellane, Duchess of Norfolk, Louis Chaix, Colonel de Rougemont, Souvenir de Leveson Gower, Pauline Lanzezeur, Madame Heraud, William Griffiths, Madame Recamier, Devoniensis, Madame Vidot, Triomphe des Beaux Arts, Duke of Cambridge, Prince Leon, Souvenir des Braves, Mdlle. Alice Leroy, Mdlle. Therese Appert, Victor Trouillard, Anna Alexieff, Triomphe de Exposition, and Duc de Ossana. 2. Mr. Laing, Twickenham. 3. Messrs. Veitch and Son, Exeter.

CLASS II, LETTER D.

1. C. M. Worthington, Esq., Caversham, near Reading, with Berenice, Cynthia, Dr. Dielthem, Transon Goubault, Colonel Coombes, Dido, Auguste Mie, Triomphe de Paris, Madame Hector Jacquin, Madame Masson, Triomphe de Beaux Arts, Madame Knorr, Madame Edward Ory, Lawrence Montmorence, Paul Ricaut, Solfaterre, Polomen, Madame Willermoz, La Quintinie, Moiret, Ophirie, Prince Leon, Triomphe de l'Exposition, Devoniensis, Coupe de Hebe, Narcisse, Leopoldine d'Beauffremont, Cornet, Jules Margottin, Belle Marie, Boula de Nanteuil, Chenedole, William Jesse, Duchess of Sutherland, Caroline de Sansal, Colonel de Rougemont, Cillet Parfait, Baronne Hallez, Comte de Paris, Pauline Lanzezeur, Gloire de Dijon, Julie d'Etanges, La Ville de Bruxelles, Passhot, Madame Breon, Emperor Napoleon, Mrs. Bosanquet, and Cloth of Gold. 2. Mr. Hollingworth, Maidstone. 3. J. T. Edge, Esq., Colchester. 4. Mr. Terry, and W. G. Puller, Esq., Youngsbury, Herts.

CLASS II, LETTER E.

1. Mr. Moffet, gardener to Viscount Maynard, Easter Lodge, Dunmow, Essex, with Lady Stuart, Pauline Lanzezeur, Madame Vidot, Madame Domage, Paul Dupuy, William Jesse, Baronne Prevost, Madame Masson, Comtesse d'Orleans, Chenedole, Cynthia, Jules Margottin, General Jacqueminot, Duchess of Sutherland, Triomphe de Paris, Mrs. Rivers, Colonel de Rougemont, Prince Leon, Madame Place, Paul Ricaut, William Griffiths, Souvenir de Malmaison, and Baronne Hallez. 2. Mr. Thomas Blake, Ware, Herts. 3. J. T. Hedge, Esq., Colchester. 4. Miss Crawshay, Caversham Park, Reading.

CLASS II, LETTER F.

1. C. M. Worthington, Esq., Caversham, Reading, with Duchess of Sutherland, Jules Margottin, Baronne Hallez, Colonel de Rougemont, Madame Masson, Madame Domage, Lord Raglan, Emperor Napoleon, Paul Ricaut, Cloth of Gold, Madame William, and Prince Leon. 2. Mr. Plester, gardener to Mrs. Rush, Elseham Hall. 3. Rev. H. Helyar, Pendomer, Yeovil.

CLASS III, LETTER G.

1. W. Cant, Esq., Mile End Lodge, Colchester, with Boula de Nanteuil, Madame Schmidt, Prince Imperial, Caroline de Sansal, Jules Margottin, Madame Knorr, Paul Ricaut, Charles Lawson, General Jacqueminot, Gloire de Dijon, Souvenir de Malmaison, Prince Leon, Etendard des Amateurs, Souvenir d'un Ami, William Jesse, Geant des Batailles, Kean, Devoniensis, Eveque de Nimes, Pauline Lanzezeur, Lord Raglan, Solfaterre, Coupe d'Hebe, and General Jacqueminot. 2. Mr. Thomas Mallett, Nottingham. 3. Mr. Thomas Walker, Oxford.

CLASS III, LETTER H.

1. W. Cant, Esq., Mile End Lodge, Colchester, with Jules Margottin, Madame Masson, Baronne Prevost, Comte de Nanteuil, Lord Raglan, Boula de Nanteuil, Solfaterre, Coupe d'Hebe, Devoniensis, Charles Lawson, Kean, Souchet. 2. Mr. Thomas Walker, Oxford. 3. Mr. Thomas Mallett, Nottingham. 4. Mr. Thirland, Oxford.

ROSES IN POTS.

1. Messrs. Paul and Son, Cheshunt. 2. Mr. E. Francis, Hertford.

Northern Counties Tulip Meeting.



ACCORDING to previous announcement this meeting, which is to be held annually, was held at Osborne House, Manchester, on Thursday, June 2. The exhibition was open to all growers except those who have been convicted of dishonest showing. We understand that the flowers on this occasion were good. The judges were Mr. Thomas Leech, Hooley Hill, Mr. R. Howarth, Blackburn, and Mr. W. Barlow, Prestwich. Two silver cups and prizes in money were given. The following were the awards of the judges:—

A Silver Cup was awarded to Mr. Henry Travis for the best Stand of Six Rectified Flowers, viz., Violet Amiable, Atlas, Heroine, Aglaia, Lilford, and San Joe.

A Second Cup was also awarded to Mr. Henry Travis, for the Best Stand of Three Breeders, viz., Celestial, Willison's King, and Maid of Orleans.

FEATHERED BIZARRES.

- 1 Magnum Bonum, R. Nunnerley
- 2 Ditto, ditto
- 3 Charles X., J. Ogden
- 4 Lord Lilford, S. Barlow
- 5 Apelles, S. Bromley
- 6 St. Clair, ditto
- 7 Rising Sun, ditto
- 8 Seedling, S. Barlow
- 9 Polyphemus, S. Bromley
- 10 Catafalque, S. Barlow
- 11 Elizabeth, R. Nunnerley
- 12 Surpass Optima, S. Barlow

FEATHERED BYBLOEMENS.

- 1 Amiable, S. Bromley
- 2 Bienfait, ditto
- 3 Amiable, ditto
- 4 Surpassant, ditto
- 5 Louis XVI., J. Wood
- 6 Chellaston Beauty, S. Barlow
- 7 Maid of Orleans, R. Nunnerley
- 8 Nepanlese Prince, S. Bromley
- 9 Lord Denman, D. Potts
- 10 Seedling, S. Barlow
- 11 Buckley's Beauty, S. Bromley
- 12 Maid of Athens, ditto

FEATHERED ROSES.

- 1 Heroine, S. Barlow
- 2 Ditto, ditto
- 3 Lady Crewe, S. Bromley
- 4 Napoleon, ditto
- 5 Rosy Queen, ditto
- 6 Mrs. Meynell, ditto
- 7 Rosa, W. Bentley
- 8 Hurst's Rose, J. Ogden
- 9 Arlette, S. Bromley
- 10 Maid of Falaise, S. Barlow
- 11 Queen of England, W. Bentley
- 12 Bion, S. Barlow

BIZARRE BREEDERS.

- 1 Sir Joseph Paxton, S. Bromley
- 2 Captain Butler, ditto
- 3 Lord Raglan, S. Barlow
- 4 Duke of Hamilton, H. Travis
- 5 Admiral Napier, R. Nunnerley
- 6 Willison's King, S. Bromley
- 7 Duke of Kent, W. Bentley
- 8 Sir Joseph Paxton, S. Bromley
- 9 Ashmole's No. 1, W. Lea

FLAMED BIZARRES.

- 1 Polyphemus, R. Nunnerley
- 2 San Joe, W. Bentley
- 3 Polyphemus, D. Potts
- 4 Don Cossack, W. Whittaker
- 5 Charles X., H. Travis
- 6 Charbonnier, W. Bentley
- 7 Charles Brown, J. Thorniley
- 8 Pilot, H. Travis
- 9 Ashmole's No. 92, S. Barlow
- 10 Shakespere, ditto
- 11 Catafalque, J. Ogden
- 12 Sir Joseph Paxton, D. Potts

FLAMED BYBLOEMENS.

- 1 Lord Denman, D. Potts
- 2 Duch. of Sutherland, W. Bentley
- 3 Incomparable, D. Potts
- 4 Maid of Athens, H. Steward
- 5 Alexander Magnus, W. Bentley
- 6 Maid of Orleans, H. Travis
- 7 Charlotte, R. Nunnerley
- 8 Violet Wallers, D. Potts
- 9 Lord Denman, S. Barlow
- 10 Bienfait, J. Wood
- 11 Buckley's 71, H. Travis
- 12 Thomas Maxwell, J. Thorniley

FLAMED ROSES.

- 1 Aglaia, S. Bromley
- 2 La Vandicken, ditto
- 3 Aglaia, ditto
- 4 Triomphe Royale, J. Thorniley
- 5 Celestial, S. Barlow
- 6 Ponceau Brilliant, D. Potts
- 7 Mason's Matilda, S. Barlow
- 8 Vesta, J. Wood
- 9 Lady Cath. Gordon, S. Bromley
- 10 Unique, W. Bentley
- 11 Anastasia, S. Barlow
- 12 Pinder's Gem, S. Bromley

BYBLOEMEN BREEDERS.

- 1 Purity, D. Potts
- 2 Seedling, W. Whittaker
- 3 Willison's Queen, D. Potts
- 4 Princess Royal, S. Barlow
- 5 W. Bentley, W. Bentley
- 6 Duch. of Sutherland, W. Whittaker
- 7 Surpass le Grand, S. Barlow
- 8 Canova, S. Bromley
- 9 Vernon, ditto

ROSE BREEDERS.

1 Lord Derby, D. Potts	6 St. Arnaud, W. Bentley
2 Rosy Nymph, S. Bromley	7 Village Maid, S. Barlow
3 Celestial, S. Barlow	8 Arlette, ditto
4 Alice, S. Bromley	9 Lady Cath. Gordon, W. Bentley
5 Queen of England, J. Ogden	

The Gishurst Compound.


SOME time since Mr. Wilson, the inventor, we believe, of the Gishurst compound, kindly sent for our inspection and use two boxes containing Gishurst compound. This we distributed to various friends, four of whom were to give us an opinion. We do not give names. Number one, two, and three are, however, amateurs, while number four is a well known nurseryman. Number one reports: I have tried the Gishurst compound (using a solution of three ounces to the gallon), on the whole of my Pelargoniums. It most certainly kills, and the only drawback is that the rough leaves of the plants retain a secretion of the composition which I find a difficulty in getting off again. Number two reports: I have used the Gishurst compound successfully on standard Roses by syringing them. Some few of the greenfly family have lived a few days, but at the end of that time they had quite ceased to exist. Number three used the compound, four ounces to the gallon, and blacked the shoots of his Geraniums, and therefore does not think over favourable of it. Number four, an extensive grower of Dahlias, cautions all users against its being too strong, two ounces to the gallon being ample, and even too much. He has used it with success, but the Dahlia is a very tender plant, and easily injured. Number four has used it successfully on fruit trees. Mr. Judd, of Althorpe gardens, has also given his testimony in favour of the Gishurst compound, so also has Mr. Rivers. We quote his letter:—

“On the 21st of June I found a quarter of Morella Cherry trees, upwards of one thousand in number,

suddenly attacked with the black aphid, well known to gardeners. I immediately had some of the Gishurst compound dissolved in soft water (two ounces to the gallon), and the ends of the shoots dipped into it, being gently rubbed with the fingers while in the liquid. The shoots that were too rigid to bend were painted with the liquid, using a painter's medium-sized brush, and brushing upwards. The day following I found nearly all my black assailants dead and dry. A few, however, were alive, and as, from experience with tobacco water, I knew that they would, in the course of a week, bring forth a progeny quite equal to those defunct, I gave orders for a second dipping at the proper time. On the 28th, feeling more than usual interest in my Cherry trees, I looked over those that had been dipped on the 21st, and could not find a single aphid left. Those that had escaped the dipping on the 21st, had languished two or three days, and then died. The young shoots imbued with the compound seemed fatal to aphid life. Some young Plum trees, covered with the blue aphid, peculiar to the Plum, and, in my opinion, the hardiest and most difficult to kill of all the race, were operated upon in the same way as the Cherry trees, and not a single aphid has survived. Some shoots of Rose trees, covered with rose aphides (the shoots are young and full of sap, and I never remember to have seen a more fat and thriving batch, winged and unwinged, of these, apart from Rose culture, really interesting creatures) were dipped into the liquid used for the Cherries, about eight p.m. They did not appear to suffer anything the first half-hour, but remained on the shoots plump and quiet as usual. The next morning every aphid was dead, and most of them were brown and dry, instead of being green and plump, as when living, the evening before. The shoots have not been syringed with pure water, to wash off the dead aphides, as is usual, but not one has made its appearance since. The young shoots, before so tempting, seem now to give out death. There are three modes of using the liquid compound,—by dipping and the brush, as described above, and with the syringe, which is the only way it can be used when

applied to wall trees, to trees in pots, in the orchard-house, or to trees trained on trellises. When so applied, one operation will not kill all the aphides. In one of my houses, full of Peach trees, three applications were necessary before the swarms with which the trees were infested were destroyed. For the odium or any other kind of mildew on Vines, the Gishurst compound is a perfect remedy. Early in June, some Vines growing on a sandy slope, and trained to stakes as usual, in the vineyards of the continent, and which for many years have borne good crops of Grapes, with which wine has been made, became covered with the odium. They were syringed once with the compound, four ounces to the gallon. The remedy seemed severe, as some of the shoots appeared to be killed. They have now entirely recovered, and are full of fruit. I should recommend only three ounces to the gallon, in preference to four, and if one syringing did not kill the odium to apply it twice. The Vines in question, some six or eight in a long row, were almost destroyed by the odium last year, while sulphur failed to arrest its growth, although applied abundantly. The cheapness and efficacy of the compound make it almost invaluable. I have never yet found any remedy for the "ills" of gardening so cheap, and so easily applied."

The Horticultural Society's Movement.

 MOST of our readers are now fellows of the Horticultural Society, London, and we have little doubt but that they will be interested in the following account. We do not criticise, we do not wish so to do, but we do especially implore every fellow to consider well whether or not this is a great commercial speculation, got up under the wing of the London Horticultural Society, but too little regarding the objects for which the society was founded, or whether

it is for the purpose of improving and developing the usefulness of this important institution. The following propositions were laid before the meeting, held on the 7th of July:—First. The commissioners will surround the whole ground with beautiful Italian arcades open to the garden, and execute extensive ground works, at a cost of fifty thousand pounds, granting the society a lease of the ground for thirty-one years, provided the society would, at an equal cost, lay out the gardens and erect a suitable winter garden at the north end. Second. That the commissioners are willing to accept a rental entirely contingent on profits, first providing for the necessary expenditure in keeping up the gardens at Chiswick, as well as Kensington Gore, next for the payment of interest on any money borrowed by the Horticultural Society, and afterwards for payment of interest on the fifty thousand pounds, to be borrowed by the commissioners for the arcades and ground work. All surplus to be then divided between the commissioners and the Horticultural Society. The council have the high gratification to announce that Her Majesty the Queen has communicated her most gracious intention of making a donation of one thousand pounds, and of nominating several branches of the royal family as life members, in aid of the object now laid before you, and that His Royal Highness the Prince Consort, president of the society, has also signified his intention of contributing a donation of five hundred pounds, as well as of taking (if required), ten debentures of one hundred pounds each. Her Royal Highness the Princess Frederic William of Prussia, Princess Royal of England, has moreover been pleased to signify her pleasure to become a life member. The great advantages of the site proposed are obvious. The garden will be in the immediate neighbourhood of Hyde Park and Kensington Gardens, and in the very centre of a new and rapidly rising town of first-class houses, which bids fair to become one of the most popular and fashionable districts in London. The shape and situation of the ground, which slopes gradually from the north to the south, admits of the formation of successive terraces on different levels,

affording peculiar facilities for effective and ornamental treatment, and is well adapted besides for the effective display of sculpture, while a fine winter garden at the upper end, and a colonnade extending round it, will afford a promenade of three-quarters of a mile in length, sheltered from heat and cold, wind and wet. The colonnade will also offer peculiar facilities for the display of the flowers and fruit at the annual shows, free from all those risks of weather which have not unfrequently marred the Chiswick fetes.

Strawberries.

[FROM THE FLORIST.]

B RITISH Pomological Society, June 23.—The prize offered by this society for the best collection of Strawberries, with foliage and flowers, was awarded to Mr. C. Turner, Slough, for a well-arranged collection of twenty-four varieties, viz:—Oscar, large, rich deep colour, a firm fruit, of excellent flavour; British Queen and Carolina superba, these two kinds maintained their position as first-class varieties, for delicious flavour; Sir Charles Napier, very large and handsome fruit, a little acid, and yet a most desirable Strawberry; Wonderful, a long large fruit, of average flavour, rich colour, said to be a great cropper; Adair and Nimrod, handsome deep-coloured fruit, poor flavour, and considered to be alike—the same was considered by the meeting to be the case with Omar Pacha and Rival Queen, but both much inferior to British Queen; Filbert Pine, not large, but fine quality and flower—the same may be said of Prince of Wales; Doubleday's No. 2 and 3 possessed considerable merit, but not sufficiently good or distinct—No. 3 is very large and showy; Elton Pine, Keen's Seedling, Rivers's Eliza, Cinquefolia, Hooper's Seedling, and Sir Harry, fine; Surprise and Admiral Dundas, both large, but of indifferent flavour;

Black Prince, Incomparable, and Nicholson's May Queen, comprised the collection; the two last by far the worst, and of no value. The four best would be British Queen, Oscar, Carolina superba, and Sir Charles Napier. Three varieties were exhibited for the prize offered for the best seedling. It was awarded to Mr. S. Bradley, Elton Manor, Notts., for Oscar, above described; it was stated to be an excellent grower, and one of the very best kinds for travelling.

The Polyanthus.

[Continued from page 236.]

IN a fortnight after planting, the surface of the border should be stirred an inch deep, but not too near the plants, which must be pressed firmly all round, close and well up to the foliage, and more soil added, if any of the fibres are exposed. I wish particular attention to this, it being, in my opinion, a very important consideration. The latter end of this month, some long soft moss will be required, which, previous to being used, should be exposed on the hearth, to a brisk fire, an hour or two, and a little soot sprinkled all over it. The foliage of each plant must be gathered close together in the hand, and the moss put all round, pressing it firmly to the foliage. and of sufficient thickness, to keep the plant perfectly upright through the winter. Provide a sufficient number of stakes, a foot long, and an inch thick, and the same number of pieces of glass, four inches square, to allow one of each to a plant. The stakes must be pointed at one end, and a saw-gate cut two-thirds through at the other end, or top, in which to fix the piece of glass. The stakes must then be pressed down three inches from the plant, in a slanting direction, so as to bring the centre of the glass directly over the heart, and let them remain through the winter, which will prevent wet lodging in

the hearts, and be a great protection from frost. This completes, for the present, the simplest and best mode of cultivation for small growers, of which I believe there are many, who have neither time nor convenience to grow for exhibition, but nevertheless feel interested in cultivating a few, for their own private amusement. To such I can confidently recommend it as being equal to the more expensive and troublesome mode of pot cultivation, with one exception—they will probably be from a week to ten days later in blooming.

I shall now attempt to give a few hints on pot culture, which are quite late enough, and where any plants have been left for potting, they ought not to be deferred beyond the first week in this month. Having grown *Polyanthuses* nearly thirty years, I find the best of all time for propagating, is the last week in July and the first week in August; and for potting, or getting them into order, from the middle to the end of September. If examined, on taking them up for propagation, at the period above stated, each heart will be found to have formed for itself a new joint, or base, from which fresh fibres are produced, and the main root almost fibreless, and fast approaching decay. The main root must be removed, by taking hold of the lower end and turning it upwards till it breaks off, which, if the new root is properly matured, will be at the above-named joint, and is far preferable to cutting. I find them to succeed much better in pots after having six or eight weeks' growth in the border, then potting them when divided, and choosing the strongest and best plants for that purpose. In potting, I use fresh fibrous loam, and would, if convenient, have it cut not more than three weeks previous to using it. It should be well broken up, and laid on a board or mat, and exposed to the sun. After being well divided, a moderate quantity of charred vegetable matter, or wood ashes, may be added, and well rubbed together. In a fortnight, if kept dry, it will be fit for screening. I also use decayed cow manure, mixed with one-eighth of charred vegetable matter, and one-eighth of shingle, or coarse grit sand, exposed and prepared in the same manner as the loam, but kept

separate until potting commences, which may be proceeded with in the following manner:—First place an oyster shell hollow side downwards, and resting on a few bits of broken pot, to ensure free drainage; then lay some pieces of rotten stick, broken small, crossways, about an inch thick, and a thin piece of fibrous turf over them; then add full two inches in thickness of the manure. In putting in the loam, form it much the highest in the middle, and regularly sloping to the sides. Observe the height required to bring the lower tier of leaves to within an inch of the top of the pot, when finally planted. Then take the plant, carefully dividing the fibres, so as to be equally distributed all round, place it in the centre, and fill up with loam, pressing it firmly, till within two inches of the top. Finish with one inch of fresh light soil, leaving, from the surface to the top of the pot, one inch clear space, which will be required hereafter. Place them in the shade, and give a moderate watering daily, for a fortnight, should the weather prove dry, when they may be allowed the morning sun until November, when further particulars will be given, as to wintering, &c.

S. HAMMOND.

[In reprinting, from the *Midland Florist*, several papers on this subject, which will be followed by Mr. Hammond's further experience, we believe we are doing service to our readers. The fact that there are so many enquiries alone warrants us in this proceeding. The volumes in which the articles appeared are totally out of print].

The Vine, in Pots.

THE cultivation of the Vine under glass is desirable even when there is no attempt to force, first because there is more certainty on the crop, and secondly, the fruit is of a better quality. There is no check to thicken the skin or lessen the size. Hence it is very commonly cultivated in the greenhouse,

and if confined to the rafters, no light is taken from the plants beneath, be they what they may. In warmer houses, which are called intermediate, the effect is to bring them forward sooner, and few people omit to have Vines in the stove or hothouse, where they may always be grown without material disadvantage to Pines, or even stove plants, if confined to the rafters. But those who take much interest in a supply of Grapes, devote entire houses to them, grow them all over, or rather under the roof, and perhaps, as at Hampton Court, contrive to get a uniform crop through the whole space. There are certain rules in the management of the Vine that are similar in all the houses, and also out-of-doors; while other rules apply to the particular situations and circumstances attending their culture. We must endeavour to divide the subject into sections, and give to each the attention required, to make our subject clear. We shall commence with a Vine up each rafter, because the treatment, so far as temperature is concerned, will do for the Vines in pots. A good deal of nonsense has been written on this part of our subject, such as would, in fact, deter many persons from attempting to grow their own Grapes. We admit that the soil should be rich, but not extravagantly so. Many Vines have been planted in the common soil, without any preparation; a hole has been dug, the plant inserted, left entirely to itself, and has progressed in an extraordinary manner, covering the front of a house, and bearing enormous crops of fruit. There is, however, no occasion to follow such an example when we possess the means of making healthy progress a certainty. But these instances furnish strong arguments against the extravagant richness adopted by some writers, and recommended to all who read their lessons. One man seriously dissects, as we once before showed, for the borders, a good sized horse or cow carcase to every ten or twelve square yards. Now, of the hundreds of places we have visited where Grapes were cultivated in the highest perfection, we cannot say that "none" had been so disgustingly manured, because two or three had been filthily fed, but they were exceptions, and by no

means the best specimens of Vine cultivation. We are not setting out to find fault with others, except to prevent the world from believing that any such horrible means are at all necessary to the highest cultivation of the Vine in this country. We do not say that the application of animal remains, in moderation, would be injurious, but as we have seen three Vine borders made that were nine feet wide and a hundred yards long, and the Grapes fine every year, without any animals to help them, we can hardly help smiling at the folly of a writer who says each of these borders ought to have had twenty-five carcasses of cows, the quantity he lays down as proper being a cow carcass for every twelve square yards, which would be four yards length of the border. Whether we are to have a murrain among the cattle, or of how the number of dead cows are to be supplied, he says nothing. But we shall quote his own words to show the absurdity of his lessons. After giving a list of materials which are to be used, he says: "Turn them in as rough as possible, adding ONE GOOD SIZED HORSE OR COW CARCASS to every ten or twelve square yards, using caution, and not bringing it to the surface of the border within one foot, as its assistance is not wanted the first year." We should have thought there were other and sanatory reasons for having them buried somewhat deeper, and still stronger ones for avoiding the use of carrion altogether. But the writer should recommend Vines to be planted at once in the churchyards now shut up for the excess of putridity; he would be quite at home there. He says, when he recommends the collection of carrion, you are "to have it cut into small pieces.*.* It emits a very nauseous effluvia, but this must be borne." We deny it. He recommends borders twenty-four feet or eight yards wide, so that twelve square yards for a dead horse or cow would require twenty dead horses and cows to be buried for sixty yards of vinery, and within a foot of the surface. We envy him not the job of cutting all this carrion into small pieces, and his enjoyment of the effluvia arising from so many rotten carcasses; but whatever employer would allow a nasty fellow like this

to turn a garden into a pestilential burial-ground, with a carcase of a cow or horse "that has died of disease" rotting in every yard and a half of Vine border, would discover the plague in his family. We should not have stepped out of the way to notice this author, but that those who pinned their faith on his dictum,—that to grow the Vine it is necessary to get a cow or horse that has died of disease for every twelve square yards of Vine border, would be deterred from attempting to cultivate Grapes at all, and a man must be little short of an idiot who sets up a dogma in opposition to so many first-rate growers, and wants tons of putrid flesh rotting within a foot of the surface, or endeavours to make people believe it is necessary to make the very air of the garden infectious to get a proper Vine border. Knight, Speechly, Abercrombie, Mawe, Macphail, Nichol, Judd, Griffin, and many others, say nothing about putrid flesh, and perhaps they, by their writings, made as many Vine growers as any authors on the subject. We thought we had said enough on this subject a year ago, but, in treating of the Vine in pots, our first consideration is the soil, and we should like to know what sort of effluvia there would be in a house if the Vines in reality required carrion—small bits of cows, which have died of disease, mixed among the compost? It is requisite to raise the plants from eyes; these should be cut from the strong portion of a bearing Vine, with very little wood either above or below them. Start these in heat, in small pots, three-inch or four-inch, in good rich soil, good loam road scrapings (not granite but gravel roads), and dung rotted to mould, in equal quantities. Shift as often as the pots fill with roots, and grow them on as fast as you well can, supporting the rods as they advance. By the end of the summer put out the pots to ripen the wood. Plunge them and fasten the rods to a warm wall. The next season they must be repotted and cut down to two eyes, and the strongest only be allowed to grow. The rod will be longer and stronger than at first. It may be stopped at six or seven feet, and at the end of the summer, must be ripened out-of-doors as before. The next is


the season for fruiting; in what form, the grower may decide,—some with the rod round the outside of four or five uprights, others may be cut to four or five feet and trained upright, or they may be placed so that they can be trained up the roof. This matters but little. They may then share the fate of the Vines that are fixtures, but they must to begin, be shifted into fifteen-inch pots. If they are coiled they can be lifted out and transferred to the table for dessert. If trained at any length up the roof they will have to be very carefully loosened, and then fastened in any fancy way, but they want no more attention than the Grapes growing in the borders, and bearing up the rafters; all the stopping, thinning, and syringing must be the same; the only difference is that the pots will require watering. We do not cut down the Vines in pots, but fruit them afterwards on the spur system. In managing the Vines for the second year's fruiting, let the wood ripen well out-of-doors as soon as the fruit is cut. When the leaves have fallen and the wood ripened, great care is wanted in shifting; turn out the balls of earth and remove all the soil from the roots; repot them in fresh soil, taking care that it is well pressed between all the roots; the same sized pots will do. They may then be plunged out-of-doors till wanted to go in the houses, when they must be pruned properly and put in the greenhouse, and then the temperature raised till they break. You will, in all probability, have more bunches of fruit showing than it is desirable to leave on; these must be regulated by the capacity of the Vine, and the after-management must be the same as the Vines in borders, but trained within the house, the only difference being in the watering; in all other respects there must be no difference. If, therefore, we can fruit the Vine well in pots without carrion, we can grow it in borders without, but a mixture of bruised bones is the strongest fertilizer that can be used, and may be safely recommended to be used in moderation for anything.

G. GLENNY.

Fulham, April 15, 1859.

Acquaintance with Greenfly.

[FROM EPISODES OF INSECT LIFE.]

 LET us, early in spring, look a little closely at the leaf-buds of a Rose bush, which we shall find even now occupied by aphid tenantry, such as have recently emerged from minute black eggs, deposited last autumn on the branches. These are all green, of similar size, and without wings, but later (towards the end of May), a single flower bud is likely to present us with two or three kinds of these infesting sap-suckers, differing in size, form, and colour. We shall therefore venture to anticipate the appearance of summer Rose buds, and with them that of the numerous descendants which are sure by that time to have sprung from the race of aphides now in being, not as those from the egg, but after the manner of viviparous animals. This may seem a strange anomaly, but there are things to tell of aphid economy stranger still. Now for our disfigured Rose bud, which, instead of encasing green and bursting red, displays nothing but a moving multitude—a conglomeration of plant-lice, which, taken “en masse,” is certainly no pleasing object. For all this, the little winged animal which, as being more conspicuous than the bulk of his fellows, we shall first single from among them, is no inelegant specimen of nature’s lilliputian workmanship. It has a plump shining body, of deep bright green, spotted at the sides with black, long slender legs, inclining to reddish, and, like a bamboo reed, marked at every joint with black or reddish brown. The shoulders, head, and long-jointed antennæ are also chiefly black, as well as two diverging spikelets proceeding from the back, while a pair of ample wings, much longer than the body, rise exactly over it. This pretty insect, and those which resemble it, look like the aristocracy of the wingless multitude by which they are surrounded, and although we cannot pronounce their pinions to be borne as badges of rank,

we believe that no reason has as yet been assigned, with certainty, for the partial distribution, among aphid tribe, of the organ of flight, which do not with them as with other insects serve as a distinction of either age or sex. A cause indeed, which, if true, is most curious and interesting, has been assigned for this difference of endowment among the aphides. It has been supposed to depend on the quality and quantity of nourishment within their reach, those which, in this respect, are well provided on a juicy luxuriant shoot being wingless, while those on a dry and sapless branch are gifted with pinions to waft them in search of better provender. Supposing this idea to be correct, we have herein another striking instance added to the many of providing care in that power which careth for all, and adapts for all the means to the exigence. If we examine now the wingless multitude—the canaille of our Rose bud, we shall find that the individuals which comprise it have shorter legs and flatter bodies than their winged superiors, and that they differ exceedingly in size one from another. For the most part their colour is a light green, though some are of a pale red, but, however else they differ, all, both winged and wingless, are furnished with one remarkable appendage common to the whole aphid tribe, to whatever plant peculiar, from the lordly oak to the lowly briar,—this is the transtellum, trunk or sucking pipe, appended beak-like to the head, and which, consisting of a tube both pointed and perforated, serves the double purpose of piercing the leaf and sucking its juices. The pipes of these, our little ravagers of the Rose, are but as breaklets compared with those of their brethren of the oak, yet they form, we can tell you, no despicable instruments of destruction, employed as they are by thousands in simultaneous and incessant labour; and this considered, who can wonder at the marvellous and unsightly changes, the spoil and havoc which these peaceful armies carry in their wake. The leaf, whose surface, when they take it into possession, resembles a smooth green plain, or divided by intersecting veins, a country of verdant fields, is presently warped and con-

verted into barren hills and arid dales by the extraction of its fertilizing sap, while the tender bud and vigorous shoot, though differently, are equally distorted and desiccated by their operations. For the most part these insect marauders, living to eat and to be eaten, seem to have no other business, no thought or care except on the matter of supplies, and take no trouble to conceal their ranks from the observation of their numerous enemies, or even to shelter themselves from the stormy wind and rain which sweeps them off by millions. But to this general rule there are numerous exceptions, and a familiar instance of their defensive works is to be met with on every aphis-blighted Currant bush. Take one of these leaves which are so often seen bloated by raised blister spots of brownish red, examine their answering concavities beneath, and within their snug recesses you will intrude on as many social groups of aphides, using their pipes in each separate divan. Some other species, common on poplar and lime, are provided with places of assembly, habitation, and concealment of a far more comfortable and complete description. * * * * *

Most of us have heard of honey-dew, and know probably that it is a sweet clammy substance, found on leaves of various trees and plants, especially the Oak, the Vine, the Hop, and the Honeysuckle. As to the real nature of this sweet poison to the plants, opinions differ. Careful observation, however, seems to have pretty clearly ascertained that the honey-dew (like the honey of bees, of vegetable origin), is extracted with the sap, secreted, and then thrown out by the aphides in a state of the greatest purity. Besides the profusion of sweets which they scatter around them like sugar plums at a carnival, they always keep a good supply within the green jars of their bodies. By the lavish distribution of their saccharine riches, our little aphides make for themselves, it is true, a few interested friends, while, on the other hand, they owe to their possession a host of devouring enemies.

[To be continued.]

Early Tulips.


YEARS ago, the Vanthol Tulip, which might be potted one month and bloomed the next, were great favourites as a sort of household flower. They would bloom in a kitchen or an area, and if people were not particular as to colour, in a dark cellar, but florists would not look at an early Tulip, they only knew the Vanthols. But years have done wonders for early Tulips. The Vanthols have been consigned to street hawkers and markets; thirty or forty varieties have been produced worthy of a place in the best gardens, and, although totally unfit for a bed, and too robust to care about an awning or cover, are the finest addition to the spring flowers in a border that can well be imagined. The colours are far more diversified than those of the show varieties, for we have in them all the shades from brilliant scarlet to blush white, and from deep purple to the lightest lilac, and if we must not criticise the interim, we may admire the form, and almost worship their brightness. The greater proportion are self colours, but there are some very nicely striped with white and yellow ground colours, and many noble double flowers. The great charm about them is their appearance in all their glory. As soon as the Crocusses go off, and in company with Hyacinths, which supply all the shades of crimson and blue, while the Tulips give us the scarlets, orange colours, and yellows. These early varieties of Tulips are every way different to the late ones, and not only stand any weather, but grow in any soil; not forgetting, however, to come stronger and larger in good rich borders. The most effective way of growing them is in groups of seven, all of a sort, one in the centre and six round it. They form then rich masses of bloom, and by paying some attention to the colours, to have them light and dark, or, at all events, as well contrasted as we can make them throughout the whole distance. They should be planted three inches deep, in October or November, and

may then be left to themselves. They will make their appearance in February, and bloom early in April, lasting a considerable time in flower if the weather be at all favourable, and such is the brilliancy of their appearance that we wonder now how anybody can be without them. There is this peculiarity in almost all bulbs, but especially in early Tulips, that if the root be saved properly, the bloom is in it, and will develop itself, more or less perfect, in any situation, and under almost any circumstances; therefore great attention should be paid in this matter. As soon as the flower has fallen, the seed pods should be broken off, and when the stem has decayed half-way down, the bulbs must be carefully lifted, the stems cut down to half-an-inch, and the whole put away in the shade, quite free from damp, till they have got thoroughly dry, when they must be cleared of their skins, dirt, and offsets, and bagged for the season. The offsets should be planted earlier than the blooming roots, but as each sort of Tulip should have a box to itself, the offsets and blooming roots may be all kept together till September or October, when all the former should be planted, because, being smaller, they much sooner dry, and very small ones will perish altogether if out of the ground too long. The offsets should be planted two inches and a half deep, in any by-place, but in tolerable good soil, and be labelled to keep each sort distinct. Each year they should be sorted, and as they get large enough to flower, be taken to the blooming roots. They multiply pretty fast, and if we begin with seven of a sort, we shall soon have a fine stock. We prefer the single to the double sorts, for the latter are too heavy for their stems, when a beating rain comes on them, but they are very grand, and last in bloom a long time. About a dozen of the best sorts are as many as we need have, for the self-colours are the most conspicuous, white, scarlet, crimson, orange, yellow, purple, and lilac. We have introduced this subject because it is now taking-up time, the best for buying. Before the growers have taken the trouble to store them, and mixed sorts, that is to say, all sorts thrown together, they may be got for about ten shillings

a hundred, but if had under names they would be from two to four shillings per dozen, and even the named sorts would be cheaper now than they will be after they are sorted, cleaned, and stored. Perhaps now they might be had at half-a-crown a dozen, under their separate names and distinctive colours, which it is necessary to be particular in, if they are to be planted in under name; for instance, it is no use to have two scarlets, or two yellows, or two whites, but there may be ten or a dozen sorts selected very unlike each other, and all very rich and gaudy.

Roses.

[Continued from page 199.]

 HOSE invaluable Roses, the Common Pink China, or Monthly Rose, *R. indica*, and the Crimson China, *R. semperflorens*, whose flowers grace the cottage-garden nearly all the year round, have given birth to numerous beautiful offspring, which are more adapted for pot-plants, or for bedding, than as standards. Many of them, though hardy at root, are cut down to the ground by severe frost, or if not so cut down, require close pruning. Against a wall they will often cover a considerable area. Alba, white, double; Cramoisie Eblouissante, vivid crimson; Fabrier, crimson scarlet; Belle Emelie, blush; Madame Breon, rich rose; Mrs. Bosanquet, blush; Eugene Beauharnais, rosy purple; Clara Sylvain and Madame Bureau, white; Carmin Superbe, or d'Yeblés, raised by M. Desprez, deep carmine; and Prince Charles, brilliant crimson, will constitute a good and select collection. The Blush was the first Tea-scented China Rose,—*R. indica odorata*—introduced to this country, followed by the Yellow China. They are good; and we now have others of great excellence. All are more fitted for pots and greenhouses than for out-door culture. They are

grateful for light rich soil, good drainage, warmth, accompanied by moisture, an atmosphere not liable to extremes of temperature, and bold yet judicious pruning. When they can be grown out-of-doors, in a south border, there is a perceptible heightening of their tints and perfume. Choice varieties are *Devoniensis*, creamy white, raised by Mr. Foster, of Plymouth; *Safrano*, pale yellowish buff; *Souvenir d'un Ami*, rosy salmon; *Adam*, ditto, very superb; *Goubault*, bright pink, very sweet; *Bougere*, deep salmon, a good pot Rose, forces well; *Vicomtesse de Cazes*, bright orange yellow, very beautiful; *Moiret*, yellowish fawn; *Elise Sauvage*, pale yellow; *Josephine Malton*, rich cream-colour; and *La Renommee*, white, with a pale lemon centre. These are the Roses to cultivate in frames and greenhouses, for late autumn, winter, and early spring. Some (as *Barbot*, cream, suffused with rose and salmon; *Princesse Marie*, rosy pink; *Reine des Belges*, *Princesse Helene*, and others) force well, although uncertain (that is, certain to fail) out-of-doors. They give a little trouble to grow them well; but then, how lovely and exquisite they are! The Fairy or Miniature Roses are the Pompons of the China group. They may be made to serve as an edging, in favourable spots; in that case, cut them back to within two inches of the ground every spring. In pots, they must be cut back freely; quite to the ground every other year, and shifted. The young wood will make handsome little bushes, and bear abundant bloom in long succession. The Blush, or Fairy, is the most generally cultivated; *Alba*, *Blanc*, or the White Fairy, is still smaller, but delicate; *La Desiree* is crimson; *Pompon Bijou*, pale pink; *Gloire des Laurenceanas* is dark crimson, and contrasts well with the above. All Roses, to do themselves justice, must have a rich soil; many are even gross feeders. The hardier and robuster kinds do well in deep alluvial loams, and will not object to heavy clayey land, if well manured, and not too wet and cold. The Chinas, and many of the Hybrids, when on their own roots, must have a lighter, warmer, better drained soil, with a considerable proportion of sand and rotten animal and vegetable remains.


In theory, all Roses may be propagated by cuttings; in practice, non-professional gardeners find certain kinds, such as the Mosses, the Provence, and the Cabbage Yellow, of a difficulty which approaches the impossible. Many Hybrids, the Bourbons, the Chinas, the Noisettes, and others strike readily, especially if assisted by a hand-light and bottom-heat. Species, like the Cabbage Yellow, which will neither bud nor strike well, must be increased by layers, the shoot being "tongued." The grafting of Roses is mostly practised by market-gardeners, for forcing for sale. Immediately the stocks are taken from the hedges in January or February, they may be grafted and potted in the forcing-house, or in a gentle hotbed, in a common frame. But by far the most prevalent mode of propagation is by budding on the *Rosa Canina*, or common Dog Rose, which is much the best for general purposes. Others, as the *Rosa Manettii* (a rampant variety raised in Italy), the Boursaults, the *R. alba*, and the Common China, have been recommended for special purposes by high authority, in which advice the writer takes the liberty of cautioning the reader not to place too much confidence. The robust "Red, Red Rose," of Scotland, which grows so vigorously in the valleys of the Grampians, merits a fair and extensive trial as a stock whereon to bud vigorous varieties. Wild Rose stocks are now an article of commerce. By giving an order to proper persons, you may obtain a supply to any reasonable amount. The nearer home they are found, and the sooner they are replanted in your nursery the better. November is the month of months for the purpose. Let them be clean stemmed, well rooted, and taken from an exposed situation. Remove all straggling roots and whatever is likely to sprout into suckers. Plant them at exactly the same depth as you observe them to have grown in their native site. Fasten each individual stock either to a stake of its own, or to a long horizontal twig, supported at each end by two upright posts. In spring, watch the swelling buds that show themselves the whole way up the stem. When they are about a quarter of an inch long, cut off all but two, which will be allowed to grow, to be budded,

at the height required, selecting strong healthy buds, as near to and as opposite to each other as possible. Into these the whole vigour of the briar will be directed.

[To be continued.]

A Gossip about the Begonia.

[FROM THE COTTAGE GARDENER.]


 IN the whole vegetable world there is not a single family which repays the care and attention of the cultivator so well as the Begonia. There is not a single genus which combines so many good qualities; not one which, as our German neighbours would say, is so "grateful" for the pains bestowed upon it. The facility with which they can be propagated (for anybody can strike a Begonia cutting), their cheapness, generally speaking, and the simplicity of the treatment they require, render them general favourites. To write a long essay upon their cultivation would be simply an absurdity—almost amounting to an insult to the reader. All they require is a good, rich, open soil, and a warm moist place to start them in—they do not care if it is a hotbed or a stove—and a snug greenhouse in which to flower. Give them these and they are satisfied—at least the greater part are so. Some three hundred and fifty species are known to botanists, but only about a third of the best of them are in cultivation. Some of these are remarkable for their graceful habit, such as *B. fuchsioides* and *B. Putziesii*; some for their delicious fragrance, as *B. odorata*; some for the time they remain in flower, opening one cluster after another continuously. I have known one plant of *B. nitida* which had two or three cymes of flowers always open, and sometimes more, for upwards of three years; and, for aught I know to the contrary, it may be in flower to this day. One cluster always remained till a new one was ready to

take its place. Some species, like *B. manicata* and *B. urophylla*, produce a mass of flowers at one time, and as that time is early in the spring, these plants are very valuable for decorative purposes, or for cutting from for bouquets. *B. octopetala*, which was one of the best in the whole family for winter blooming, has, I fear, been lost; at any rate I have inquired for it in all the London nurseries and public gardens without success. It may, perhaps, still be grown in some private garden, and if any person has really got it he would do good service to the country by placing it in the hands of some one who would propagate it to the utmost. It is a tuberous-rooted herbaceous species (like the old *Discolor* or the splendid *Diversifolia*); its flowers are pure white, large as an *Anemone*—larger, in fact, than any other species, and having, as the name implies, eight petals. It is a native of Peru, and was introduced some twenty years ago. But the *Begonia* has other recommendations of which we have not yet spoken—the exquisite beauty of its variegated foliage, and the facility with which it can be hybridised. It is only about three years since *Rex* astonished the world, and now it is to be met with in almost every garden you visit, either in England or on the Continent. It is a market plant, purchasable for a few pence in all large cities from Paris to Moscow, from London to St. Petersburg. By crossing, it has already given rise to an almost innumerable progeny of vegetable genus. To develop the beauty of these variegated *Begonias* to the utmost, three things are necessary—heat, moisture, and shading. Let us mention a few of the best of this class. *B. splendida*, young leaves like crimson velvet, but the plant is apt to become ugly as it reaches a large size. The variety called *B. splendida argentea* is not open to this accusation. It is really a magnificent thing, a pink tinge shining through the silver of the foliage. *B. Griffithii* (still called *Picta* in some gardens), is one of my greatest favourites, the various zones of colour are so beautifully shaded the one into the other. *B. xanthia Reichenheimii*, green bands follow the principal veins, the spaces between pure white. *B. xanthia lazuli*, leaves copper coloured,

shining with a beautiful metallic lustre. *B. xanthia pictafolia*, leaves copper coloured, with distinct large white blotches. *B. Queen Victoria*, raised by Makay, the Belgian nurseryman, very delicate; the leaf milky-white, except a margin of green dots, and a few about the centre. *B. Prince Troubetzkoy*, apparently a cross from *Lacaniata*, very distinct, the leaves dark in the centre, pea-green towards the margin; footstalks and underside reddish. *B. argentea*, the upper surface of the leaf quite white; exceedingly delicate. *B. regina*, only one step removed from *Rex*, the bands of colour being rather more shaded off. In the same strain are *Miranda*, *Madame Wagner*, and *argentea guttata*, which are scarcely distinct enough from each other. *B. amabilis*, the bright banded leaves very glossy and shining. There are many others which have been raised more recently, of which the merits are less known, as only small plants are generally met with. Those most highly spoken of are *Nebulosa*, *Ajax*, *Nobilis*, *Victoria* (different from *Queen Victoria*), *Grandis*, and others.

KARL,

The Currant.

 HIS fruit may be propagated several ways, but the method generally adopted is by making cuttings of the previous year's growth, although almost any part of the bush, if planted in the soil, will strike root. The shoots chosen should be vigorous and straight; cut them, with a good sharp knife, to ten or twelve inches, retaining the lower portion, the base of which should be neatly trimmed, and all the eyes or buds should be rubbed off, with the exception of two or three at the top of the shoots. This operation, though not always attended to among practical men, is necessary to prevent suckers shooting up from the root, which would be the case were these buds left on the cutting.

In the autumn, or spring, make as many of such cuttings as you want plants, and prepare one or more beds, about five feet wide, on any border which is somewhat shaded; make the soil moderately rich and open; common garden soil will answer the purpose well enough. The cuttings should be placed in the ground at the same time the bed is being formed, thus:—Having marked out the dimensions of the bed, dig out, at the end of it which is next to the walk, an ordinary trench, and remove the soil thus taken out to the other end of the bed; then commence digging the soil finely, in the usual way, at the end where the trench has been made; and, when about a foot of the soil has been dug, make, with the spade, a sloping cut down the face of the dug earth, deep enough to receive the cuttings, which should be placed about six or eight inches apart in the row, and so far in the ground that their upper extremities, with the buds, may be kept well above the surface. Then lay over their lower parts a portion of soil, and tread it lightly down. This done, continue to dig as much more, when another row must be placed in the same manner, and so on until the whole of the cuttings are planted. When cuttings are planted in this way, it is proper to make use of a garden line for the purpose of keeping the rows straight, as well as parallel with the walk; for cuttings planted in an irregular manner never look well; but, if the beds are narrow, a practised eye will not require the aid of a line; it is, however, best to be used, as the work can be done with more certainty, and with no more trouble than without it. When the cuttings are placed regularly, and the bed completed, dress the alleys on each side of it, and make them neat and tidy. As the rows are wide enough, a Dutch or draw-hoe may be used for this purpose; but you should remove by hand any weeds that are growing close to the plants, in order to avoid injuring the cuttings, which will soon strike root, and only require to be kept clear of weeds and have the ground occasionally stirred around them. At the end of the following year, the plants will have grown considerably, and will, if allowed to remain in the rows, be too near one another. Every

other plant must, therefore, be taken out and transplanted into an intermediate bed, in the same way as at first, and the soil may be somewhat stronger. They must now be kept twelve or fourteen inches apart in the rows, which should be about eighteen inches wide; the ground in the first bed should also be forked over, not dug, and made neat and level, covering in the holes formed by the removal of the plants. When the plants, after having been properly pruned and formed, have grown so large as to bear, they may be planted out in the quarters where they are to grow. Like Gooseberries, they are very often planted along the borders by the walk of the kitchen garden, in lines or rows, and at any distance from four to nine feet apart, according to their habit and other circumstances. They cannot have too much room, and it may be preferable to plant them wide enough at once, and the intervening ground may be cropped with vegetables. Indeed, it is perhaps better to distribute them in wide rows throughout the garden, than to grow them in a quarter by themselves; for by the former mode they are more easily accessible for the purpose of pruning and gathering the fruit, which, from the greater exposure, is generally larger and better flavoured. There are also several kinds of vegetables which are best grown where they can derive a certain degree of shade, such as the rows of Currant and Gooseberry bushes afford them. With regard to pruning, Currants present no difficulty. The object should be to have them in a regular and open form, which may be secured by a little timely attention when they are quite young, in the nursery beds. They will have sent out several shoots the first year, and these should be cut back to a few inches from their base, and all the central ones removed entirely. The branches must be trained so that they are regularly and thinly distributed in an outward direction, presenting something like a wheel, the shoots or branches being eight or nine inches apart; rub off all the buds at the base, which would otherwise grow into branches, and impede the free circulation of light and air. The stem which supports the branches should be at least from six to

eight inches in length, and it should grow up quite straight and free from secondary shoots as far as the branches which are required to form the bush; and these should not exceed five or six in number. When shortened, as already directed, at the end of the first year, the branches will, the following summer, form other shoots, which must also be kept clear of useless or unshapely laterals, which should be cut at the summer or autumn pruning, and each of the proper or legitimate branches topped an inch or two, or to that extent which may be necessary to keep them in a neat and regular form. Nothing can be more injurious to the health and productiveness of the bushes, than leaving the centre crowded with small branches, which seldom bear any fruit; for the flavour of that which is produced on the others is considerably affected, while the berries never attain the size they do on properly pruned bushes. In fine, the branches should be kept moderately short, not close to one another, and perfectly open at the centre of the bush. When pruned in this way, they will produce the greatest quantity of fruit, and the berries will be large and well-flavoured. These directions are chiefly applicable to what are called the white and red sorts of Cuarants, the fruit of which is produced on short spurs.

[To be continued.]

GEORGE GLENNY.


Opinions of Flowers.

SWEETWILLIAMS.—C. W., *Dunse*.—The Hunt's Sweet-williams sent are anything but good. Of your own, No. 1, velvety peach, good eye; No. 2 was too withered to form any judgment. The colour, however, is good. No. 3, a bright rose colour, good eye and shape, save the serrature on the edge. No. 4, dark marone, good clear white eye, edged with a white fringe; good. Several of Hunt's have excellent edges, but are wanting in size, though the light variety is good.

Box of Pinks, received June 21st, from Mr. Hartley, florist, Leeds.—No. 4 promises well, has a good petal, and well laced with heavy but bright purple on a pure white ground. No. 5 seems to have good properties about it, but the flower sent is not in a condition to pass a satisfactory opinion upon it. No. 6 possesses every good property save that of size; grow it a little larger, and with a few more petals and it will please any one, and look well in a stand of twelve. No. 22; here we have something like perfection in the Pink. In the first place it is average in size, plenty of good rose-leaved petals, beautifully laced with heavy bright red upon a pure white ground. I hesitate not in pronouncing it a gem of the first water, and will do credit to the name of the raiser. No. 26 will make a good sort, only grow it larger, with a few more petals; the petals it possesses are good, and well laced, with dark mulberry upon a white ground. No. 7, with the exception of one fault, is a nice sort; it is a good average size, plenty of good rose-leaved petals, and laces well with bright rose purple; but the eye or colouring in the centre is too small. The others, Nos. 2, 8, and 11, are of no use now a days. We must have something like average in size, and rose leaved; none of the narrow gauged, white fringed, serrated colours, or scalloped edges; smooth, plain, with solid colouring, ought, and soon will be, the style.—J. HEPWORTH.

HOLLYHOCKS, J.—The seedlings sent are very good. No. 44 seedling is excellent form. Is it as good in the spike? No. 62 is, as you observe, also very pretty, but not worth letting out. Sow your seed now, you will get a majority of plants to bloom next season.

Notes and Queries.

 ISHURST COMPOUND.—What is your personal experience of this popular remedy, and where can I get it? —W. T., *Cambridge*.—We quite endorse the sentiments on page 266. At first, we, like many others, used it too strong, and this set us against it, but we are now of the opinion that it is one of the best remedies out. You will find a list of agents in this month's advertising sheet.

PEAS.—Is there any difference between the Auvergne Pea and Dickson's Favourite?—J. H., *Durham*.—This question has been asked by others besides yourself, in the *Gardeners' Chronicle*. We have grown both this year, and think they are of different flavour; most certainly, in appearance, they are much alike.

LISTS OF FLORISTS' FLOWERS.—Will some cultivator give me the best twenty-four Pelargoniums, the best twelve fancy ditto, the best twelve Cinerarias, and the best twelve Tulips?—**T. H., Dorking.**

FLOWER PEGS.—What is the best flower peg I can use? I want something cheap, and yet easily applied. Ladies' hair pins I find a good thing, but really on a large bed of Verbenas, &c., they are sadly expensive.—**AN OLD SUBSCRIBER.**—A Mr. Prior, of Alton, recommends those made of zinc wire, which he finds answer perfectly. They have hooked heads, and are three inches in length. They are also applicable to all kinds of layering, increasing length and strength. Mr. Prior says he can make one hundred in five minutes himself.

MOWING MACHINES.—Can you tell me the name of the best maker of mowing machines?—**AN IRISHMAN.**—We really cannot take on ourselves to say; Samuelson's and Green's are both in use on some lawns near us, and seem to answer perfectly.

BOILERS.—J. W. T. may safely rely on Jones's Cannon Boiler. We know of two in work all last winter giving entire satisfaction.

Calendar of Operations.

A ZALEAS.—Those that were placed in heat in the spring will be showing bloom buds, and if not wanted to flower early next spring, take them out of the house, place them on the north side of some building, and keep as cool as possible. But if wanted to bloom at Christmas, keep them in the forcing-house three or four weeks longer. Keep a sharp eye upon them, and see that they are fumigated frequently, to prevent thrip. Syringe frequently. Give air at the top of the house, to keep down the temperature, but do not open the side lights, except the atmosphere be very mild and soft.—**E. CLEETON.**

EPACRISES.—Towards the middle of the month, let them have the full benefit of the sun; by so doing you will get all the wood well ripened, and a bountiful supply of bloom next Christmas and spring, but watering and protecting the roots from the hot sun must be attended to. Staking, training, &c., should be thought of in time.—**E. CLEETON, Dumbleton, near Evesham, Gloucestershire.**

CARNATIONS AND PICOTEEES.—The bloom this season having been unusually early, layering can be completed in good time,

a point of great advantage. This having been done, there remains but little else this month, except carefully attending to the watering.

CINERARIAS.—Some care will be necessary during the hot weather. The Cineraria prefers a cool shady situation, yet if grown too much in the dark, there is the danger of mildew; sulphur, should this appear. The first struck cuttings will now require repotting, as also the first sown seedlings, for early bloom.

FLOWER GARDEN.—Operations in this department for this month are principally routinal, such as watering, staking, tying, and in fact all the operations which have a thorough neatness in view. Propagation for the wants of another season must now be commenced, particularly of such sorts as do not root freely. Attend strictly to the routine of mowing, sweeping, and rolling, and to keeping the edges of all well defined; indeed perfect order is quite as essential to the enjoyment of a garden as beautiful flowers and superior cultivation.—*James Carter's Gardener's Vade Mecum.*

HEATHERY.—Only a few of the choicest specimens and a sprinkling of the autumn-flowering sorts should be left here. Of course the others will all be out-of-doors, in some situation where they can be shaded from the mid-day sun, either by a hedge-wall or calico. Examine the state of the drainage, more particularly those plants that have been standing out-of-doors ten or twelve weeks, and see that none suffer for want of water.

—**CLEANING, PAINTING, &c.**—Azalea, Epacris, and Heath-house should be put in thorough repair ready to receive the plants in autumn; such as glazing, painting, the examination of all flues, furnaces, pipes, and hot water apparatus. The interior of the glass and wood-work should also be well washed and cleaned with hot water and soft soap; walls, &c., should have one or two good coats of lime whitening, made from strong newly-burnt lime, with a good supply of sulphur vivum added thereto, and every corner and crevice should be thoroughly washed with the above mixture. A clean and wholesome house is just as essential to the constitution of the plants as a good shower bath and a clean shirt are to ourselves. Filth will not maintain a luxuriant healthfulness for any length of time, but afford the very hospital for breeding and cultivating a host of noxious and destructive vermin, and also contaminate the atmosphere, and cause that kind of unwholesomeness that would not be compatible with health either in the animal or vegetable world. Let the above remarks be well looked into, and thorough cleanliness be established now at the most convenient season, as all the houses will be nearly clear of plants.—**E. CLEETON, Dumbleton, near Evesham, Gloucestershire.**

PELARGONIUMS.—Sow seed when sufficiently ripe. Repot cuttings as soon as struck, using good rich soil. Grow them quite hardy. Pelargoniums will stand any amount of light, either striking or afterwards. We seldom shade.



SEPTEMBER.

CHESTERFIELD

National Carnation & Picotee Society.

"We are the flowers,
Born of sunny hours;
I think whene'er you see us what our beauty saith—
Utterance mute and bright,
Of some unknown delight,
We fill the air with pleasure, by our simple breath;
All who see us love us;
We fit all places;
Unto sorrow give smiles, and unto graces—graces."

THURSDAY, August 4th, a fine bright morning, we journeyed with a train, not of florists, from Nottingham, but of visitors, who, attracted by the cheap train, availed themselves of the opportunity. We must say that it was with pain we saw so few of the Carnation and Picotee growers with us, but whatever was the reason, whether the exhibition being too late or otherwise, so it was; there were but few present. When we arrived too we were disappointed, for, in spite of the earliness of the season, we had hoped that some of the southern growers, at all events Mr. Turner, would have been there, but no! Take a map, make your furthest point south Chesterfield, and, drawing a line, you would find all your exhibitors come northward of that line. The flowers, on the whole, considering the lateness of the season, were better than we had anticipated. Dreadnought, a new flower, vastly like Admiral Curzon in a many instances, occupied a prominent position in the stands, it being exhibited no less than nine times, and standing, in point of numbers, second in its class. Nurserymen were represented by Messrs. Dodwell and Co., Mr. R. R. Oswald, &c.;

while amateurs were well represented by the Lancashire and Yorkshire growers. In Mr. Openshaw's pan of twelve Carnations an exceedingly fine bloom of Lord Milton was shown, while in Mr. Baidon's pan of Carnations a very fine seedling, in the style of Lady Ely, attracted much attention. The premier Carnation at the meeting was a bloom of Dreadnought, exhibited by Messrs. Dodwell and Co., the same honour being awarded to Mr. E. Wood, of York, for Mrs. Bayley. We shall not enter into the merits and demerits of the various stands in the Picotee class. The decision of the judges seemed to give universal satisfaction—the amateurs judging the dealers' classes, and the dealers fulfilling the same office for the amateurs. The Hollyhocks exhibited by Mr. Chater, of Saffron Walden, were remarkably good. A new seedling, tipped with blush, and which Mr. Chater, jun. kindly informed us was the first bloom opened, will, if we mistake not, be a first-rate variety. Celestial, Memnon, Mrs. Chater, Harriet, Exhibitor, Mary Ann, Sceptre d'Or, Seedling (blush), and J. Clarke were all flowers after our own heart. The season was so unfavourable that the Roses were good for nothing. A nice collection of plants from Fisher, Holmes, and Co. His Grace the Duke of Devonshire, though not large, were very beautiful; they principally consisted of Begonias, *Farfugium grande*, Venus Fly trap, jug plants, pitcher plants, Orchid *Miltonia Spectabilis*, Cotton, Ginger, Coffee and Arrow root plants. Some fine Potatoes and black Grapes were also to be found in the amateurs' tent, while a collection of Potatoes, from Wingerworth gardens, were in first-rate order. The company of Alvain's coloured opera troupe, as well as a fine regimental band enlivened the whole. The former proving an almost paramount attraction. The following were the awards of the judges:—

CLASS A.—(For Nurserymen).—Premier Prize for the Best Twelve Carnations, and the Best Twelve White Ground Picotees, Dissimilar Varieties. A Silver Plated Tea and Coffee Service, Messrs. Dodwell and Bayley. *Carnations*: Lord Milton, Rose of Castile, Dreadnought, Premier, Lovely Ann,

Admiral Curzon, Squire Meynell, Sarah Payne, John Bayley, Queen Boadicea, and Jenny Lind. *Picotees*: Prince of Wales, Mrs. Bayley, Mrs. Turner, Sultana, Aurora, Lord Nelson, Ada Mary, Amy Robsart, Seedling (light purple), Seedling (rose), Mrs. Barnard, and Venus.

CLASS B.—(For Private Growers).—Premier Prize for the Best Twelve Carnations, to contain not less than Nine Dissimilar Varieties, and the Best Twelve White Ground Picotees, not to contain less than Nine Dissimilar Varieties. A Silver Plated Tea and Coffee Service; Mr. H. Steward, York. *Carnations*: Jenny Lind, King John, Lord Raneliffe, Jenny Lind, Beauty of Woodhouse, Warrior (Slater's), Christopher Sly, Uncle Tom, Dreadnought, Uncle Tom, Falconbridge, and Warrior. *Picotees*: Mr. Bayley, Mrs. Turner, Amy Robsart, Dr. Pitman, Ada Mary, Mrs. Hoyle, Mr. Bayley, Aurora, Mrs. Dodwell, Lord Nelson, Mrs. Turner, and Mrs. Dodwell.

CLASS C.—Premier Prize.—(Open to Cultivators whose Stock shall not exceed One Hundred and Fifty Pairs).—For the Best Six Carnations, and the Best Six White Ground Picotees, Dissimilar Varieties. A Silver Plated Tea and Coffee Service; Mr. W. M. Hewitt, Chesterfield. *Carnations*: Friar Lawrence, Squire Meynell, Dreadnought, Admiral Curzon, Lord Milton, and John Bayley. *Picotees*: Crystal, Ada Mary, Aurora, Queen, Amy Robsart, and Mrs. Norman.

CLASS D.—(For Nurserymen).—Twelve Distinct Varieties of Carnations. 1. Messrs. Dodwell and Bayley, with Rose of Castile, Admiral Curzon, Sarah Payne, Dreadnought, Lord Milton, Squire Meynell, Ivanhoe, Queen Boadicea, Sportsman, Lovely Ann, and Earl Wilton. 2. Mr. Walmsley, Oldham, with Dreadnought, Squire Meynell, Uncle Tom, Mr. Ainsworth, Lovely Ann, Splendour, Curzon, Lady Ely, Seedling, Lord Milton, Mr. Holland, and King of Carnations. 3. Mr. R. R. Oswald, Adderley Gardens, Birmingham, with Jenny Lind, Admiral Curzon, Black Diamond, Dreadnought, Lady Curzon (very like Sportsman), Warrior, Lady Gardiner, Favourite, Florence Nightingale, Lovely Ann, Sir J. Paxton, and Cradley Pet.

CLASS E.—(For Nurserymen).—Twelve Distinct Varieties of White Ground Picotees. 1. Mr. Walmsley, Oldham, with Mrs. Norman, Seedling, Crystal, Mrs. Bayley, Bertha, Green's Queen, Lauretta, Mrs. Drake, Cornelius, Miss Holbeck, Lord Nelson, and Sultana. 2. Messrs. Dodwell and Bayley, with Mrs. Dodwell, Mrs. Turner, Lord Nelson, Sultana, Mrs. Bayley, Seedling, Crystal, Amy Robsart, Venus, Seedling, and Alfred. 3. Mr. R. R. Oswald, Adderley Gardens, Birmingham, with Ada Mary, Alfred, Lady Alice Peel, Sultana, Mrs. Turner, Seedling, Lavinia, Mrs. Barnard, Mrs. Bayley, Dr. Pitman, Amy Robsart, and Mrs. Hoyle.

CLASS F.—(For Private Cultivators).—Twelve Blooms of Carnations, not less than Nine Dissimilar Varieties. 1. J. J.

Openshaw, Esq., Bury, Lancashire, with Lord Milton (very fine), Seedling, Black Diamond, Dreadnought, Lovely Ann, Splendour, Lord Ranccliffe, Squire Meynell, Squire Trow, Lady Gardiner, Admiral Curzon, and Warrior. 2. Mr. Samuel Yardley, Oldham, with Dreadnought, Splendour, Warrior, Admiral Curzon, William IV. (Wilson's), Mr. Ainsworth, Sportsman, Uncle Tom, Ariel, Black Diamond, Lady Ely, and Premier. 3. Mr. Samuel Brown, Handsworth, with Jenny Lind, Lord Lewisham, King John, Jenny Lind, Florence Nightingale, Admiral Curzon, Black Diamond, Lady Rhodes, Admiral Curzon, Warrior, Lady Curzon, and Premier. 4. Mr. J. Cheetham, Rochdale, with Dreadnought, Earl Wilton, William IV., Jenny Lind, Black Diamond, Lady Gardiner, Lord Goderich, Splendour, Lovely Ann, Queen Boadicea, Magnet, and Admiral Curzon. 5. Mr. E. Elliott, Rochdale, with Poor Tom, Paladdin, Premier, Admiral Curzon, Firebrand, Beauty of Woodhouse, William IV., Earl Spencer, Admiral Curzon, Poor Tom, Lady Curzon, and Lord Goderich. 6. Mr. Baildon, Halifax, with Admiral Curzon, Lovely Ann, Admiral Curzon, Seedling, Paladdin, Juno, Queen Boadicea, Firebrand, Premier, Seedling (good, in style of Lady Ely), and Black Diamond.

CLASS G.—(For Private Growers).—Twelve Blooms of White Ground Picotees, not less than Nine Dissimilar Varieties.

1. J. J. Openshaw, Esq., Bury, with Mrs. Bayley, Crystal, Haidee, Dr. Pitman, Amy Robsart, Seedling, Lord Nelson, Aurora, Alfred, Mrs. Norman, Amy Robsart, and Ada Mary. 2. Mr. J. Cheetham, Rochdale, with Haidee, Crystal, Lauretta, Amy Robsart, Lord Nelson, Mrs. Turner, Eugenia, Bertha, Eva, Sultana, Mrs. Eyre (good), and Dr. Pitman. 3. Mr. W. Baildon, Halifax, with Amy Robsart, Crystal, Mrs. Holbeck, Mrs. Norman, Mrs. Dodwell, Alfred, Mrs. Turner, Amy Robsart, Lord Nelson, Mr. Drake, Lauretta, and Mrs. Bayley. 4. Mr. Samuel Brown, Handsworth, with Eva, Sultana, Ada Mary, Aurora, Mrs. Lochner, Lady Alice Peel, Mrs. Hoyle, Alfred, Mr. May, Lavinia, Mr. Bayley, and Sultana. 5. Mr. H. Steward, York, with Mrs. Lochner, Mrs. Eyre, Mrs. Turner, Mrs. Hoyle, Ada Mary, Aurora, Lord Nelson, Ada Mary, Dr. Pitman, Mrs. Turner, Alice (Hoyle's), and Mrs. Dodwell. 6. Mr. W. M. Hewitt, Chesterfield, with Seedling (good), Bertha, Mrs. Dodwell, Mrs. Turner, Bertha, Queen, Crystal, Mr. Dodwell, Lauretta, Lady Grenville, Ada Mary, and Queen Victoria.

CLASS H.—(For Private Growers).—Six Blooms of Carnations, Dissimilar Varieties. Open to Cultivators whose Stock does not exceed One Hundred and Fifty Pairs. 1. Mr. E. Wood, York, with Grand Monarch, Jenny Lind, King John, Lovely Ann, Warrior, and Comet. 2. Mr. Brierly, Chaderton, with Lady Curzon, Lovely Ann, Sportsman, Warrior, Admiral Curzon, and Black Diamond. 3. Mr. Mellor, Ashton,

with Warrior, Seedling, Queen Boadicea, Black Diamond, Esther, and Admiral Curzon. 4. Mr. Bardsley, Oldham, with Admiral Curzon, Splendour, Sportsman, Esther, Lord Milton, and Rosy Queen. 5. Mr. H. Williamson, Oldham, with Admiral Curzon, Splendour, Warrior, Black Diamond, Sportsman, and Lovely Mary.

CLASS I.—(For Private Growers).—Six Blooms of White Ground Picotees, Dissimilar Varieties. Open to Cultivators whose Stock shall not exceed One Hundred and Fifty Pairs. 1. Mr. E. Wood, York, with Ada (Bamell's, a very pretty thing), Seedling, Mr. Hoyle, Aurora, Eva, and Mrs. Bayley. 2. Mr. Brierly, Chadderton, with Amy Robsart, Mrs. Turner, Seedling, Mrs. Norman, Venus, and Lord Nelson. 3. Mr. Mellor, Ashton, with Mrs. Dodwell, Mrs. Turner, Crystal, Sultana, Mrs. Barnard, and Eugenia. 4. Mr. Bardsley, Oldham, with Mrs. Dodwell, Lord Nelson, Miss Holbeck, Haidee, Helen, and Ada Mary. 5. Mr. H. Williamson, Oldham, with Amy Robsart, Ada Mary, Mrs. Norman, Picco, Eva, and Mrs. Dodwell.

CLASS SHOWING.

CARNATIONS.

SCARLET BIZARRES.

1	Admiral Curzon,	J. J. Openshaw
2	Admiral Curzon	Dodwell & Bayley
3	Dreadnought	ditto
4	Admiral Curzon	ditto
5	Paladdin	J. J. Openshaw

CRIMSON BIZARRES.

1	Black Diamond	J. J. Openshaw
2	Lord Milton	ditto
3	Ditto	ditto
4	Jenny Lind	ditto
5	Black Diamond	ditto

ROSE FLAKES.

1	Lovely Ann	Cheetham
2	Maid of Athens	Elliott
3	Poor Tom	Openshaw
4	Rose of Castile	Dodwell & Co.
5	Seedling	Baildon

PURPLE FLAKES.

1	Seedling	Baildon
2	Seedling	Openshaw
3		
4	Napier	Cheetham
5	Premier	Openshaw

SCARLET FLAKES.

1	Splendour	Openshaw
2	Ditto	ditto
3	William IV.	Cheetham

4	Firebrand	Baildon
5		

PICOTEEES.

HEAVY PURPLE.

1	Mrs. Bayley	J. J. Openshaw
2	Mrs. Bayley	J. Walmsley
3	Mrs. Bayley	J. Yardley
4	Mrs. Bayley	J. Walmsley
5	Lord Nelson	J. J. Openshaw

LIGHT PURPLE.

1	Amy Robsart	J. J. Openshaw
2	Ditto	ditto
3	Haidee	ditto
4	Amy Robsart	ditto
5	Mrs. Eyre	ditto

HEAVY RED.

1	Sultana	Dodwell and Co.
2	Mrs. Dodwell	Steward
3	Mrs. Norman	Baildon
4	Ditto	Openshaw
5	Mrs. Dodwell	Yardley

LIGHT RED.

1	Eugenia	J. J. Openshaw
2	Ditto	ditto
3	Eugenia	Mellor
4	Charles Turner	Steward
5	Miss Holbeck	J. J. Openshaw

HEAVY ROSE.		LIGHT ROSE.	
1 Aurora	Openshaw	1 Mrs. Turner	Baildon
2 Venus	Dodwell and Co.	2 Ditto	ditto
3 Ditto	ditto	3 Crystal	J. J. Openshaw
4 Alice	ditto	4 Unknown	Dodwell and Co.
5 Venus	ditto	5 Mrs. Turner	J. J. Openshaw

Analysis of Carnations & Picotees.

WHY call it National? say I, for this year I take up the list I have made, and find that there were thirty-one prizes, independent of the class showing; of these there were thirteen taken by Yorkshire growers, twelve by those of Lancashire, four by those of Warwickshire, and two by the north part of Derbyshire. Are these the only counties where Carnations and Picotees are grown? or has there been a mistake? and has the Northern Counties Carnation and Picotee exhibition been held instead of the National? I could find no Mr. Turner—no southern growers at all; the midlands, too, were absent; the reason was obvious; the exhibition was fixed much too late, and I hold, as I have done before, and as I have done publicly in print this year, that the National show, if it is really to be a National show, must be held in July. The National Society headed their circulars that the proposed amalgamation of the two societies, viz., the Northern Counties and the National, was not acceptable to the great majority of cultivators, but I think it is hardly fair that the southern and midland counties should have no chance to represent their various localities. The bloom, with me, had been over nearly three weeks, that is, the best of the bloom, and on the day of exhibition I don't think a pan could have been cut from the whole of the county. I do not make these remarks with any ill feeling at all, but simply to prevent a recurrence of the same, for it must of necessity damage the society, because the midlander and southern

men will undoubtedly withhold their support if they are debarred showing. The management of the whole reflected credit on the secretaries and committee. In the analysis it will be found that the greatest number of flowers were old faces. In the Carnations, crimson bizarres were ably represented by Black Diamond and Warrior, being about the same positions occupied by them last year. In scarlet bizarres, Admiral Curzon maintains its old position, while Dreadnought, a flower remarkably like it, and a new competitor, comes in. In rose flakes, Lovely Ann is, as last year, first in its class, while Queen Boadicea is second. In scarlet flakes, Splendour takes the lead, followed by Sportsman, they standing in places vice versa last season. In purples, Squire Meynell and Premier occupy about the same positions as before. In the heavy purple class of Picotees, Mrs. Bayley and Lord Nelson take the same positions as they previously occupied. In light purples, Amy Robsart, Haidee, and Mrs. Eyre were only shown, there not being a single bloom of Finis. In heavy roses, Aurora mounts the top, beating Green's Queen, while Venus occupies only a step lower than that of last year. In light roses, Mrs. Turner keeps her place, but Bertha, Eva, and Mrs. Barnard all bow before a new competitor, Crystal—a flower of the first class, let out by Mr. Smith. In heavy reds, Mrs. Norman had to succumb to Mrs. Dodwell, as also did the same variety to Sultana. In the light reds, Ada Mary maintained the former good character given by beating Miss Holbeck, and was followed by Eugenie.

CARNATIONS.

CRIMSON BIZARRES.		SCARLET BIZARRES.	
Black Diamond	11	Admiral Curzon	21
Warrior	10	Dreadnought	10
Jenny Lind	9	Paladdin	3
Lord Milton	8	Lord Ranccliffe	2
Sarah Payne	7	Mr. Ainsworth	2
Lord Goderich	2	Sir J. Paxton	1
Falconbridge	1	Lord Lincoln	1
King of Carnations	1		

SCARLET FLAKES.		ROSE FLAKES.	
Splendour	9	Lovely Ann	10
Sportsman	6	Queen Boadicea	5
Lady Curzon	4	Rose of Castile	3
William IV.	4	King John	3
Uncle Tom	4	Poor Tom	3
Firebrand	3	Lady Gardiner	3
John Bayley	2	Lady Ely	2
Christopher Sly	1	Maid of Athens	1
Ivanhoe	1	Ariel	1
Cradley Pet	1	Rosy Queen	1
Comet	1	Lovely Mary	1

PURPLE FLAKES.

Squire Meynell	5	Earl Wilton	2
Premier	4	Favourite	1
Premier	3	Squire Trow	1
Esther	2	Earl Spencer	1
Beauty of Woodhouse	2	Napier	1

PICOTEEES.

HEAVY PURPLE.		LIGHT PURPLE.	
Mrs. Bayley	14	Amy Robsart	15
Lord Nelson	11	Haidee	4
Alfred	5	Mrs. Eyre	3
Countess	1		
Mrs. May	1		

HEAVY ROSE.		LIGHT ROSE.	
Aurora	8	Mrs. Turner	15
Venus	6	Crystal	9
Queen	4	Bertha	4
Mrs. Drake	2	Eva	4
Alice	2	Mrs. Barnard	3
Helen	1	Lannia	2
Lady Alice Peel	2		
Lady Grenville	1		

HEAVY RED.		LIGHT RED.	
Mrs. Dodwell	12	Ada Mary	11
Sultana	9	Eugene	5
Mrs. Norman	7	Miss Holbeck	4
Dr. Pitman	5	Charles Turner	1
Mrs. Hoyle	5		
Lauretta	4		
Mrs. Locke	2		
Prince of Wales	1		

The Gloxinia.

BOTANICALLY viewed, this genus belongs to the natural order, Gesneracæ, and Didynemia, order Angiospermia, of Linnæus; geographically considered, the greater number of the exotic species in cultivation here are natives of South America; from Rio Janeiro, the modern capital of Brazil, some of the species have been introduced; several from Buenos Ayres, and others from the tropical ports of North America, viz., Mexico, &c. But the whole of this genus in cultivation does not consist merely of exotic species, for by the introduction of many English hybrids, cultivators have been put in possession of varieties, by careful hybridising, either natural or artificial, many of which surpass in beauty and habit the exotic species from which they had their origin. The object in view in the present article is not of a botanical or geographical character, but a detail of a successful practice of cultivation for the preparation of decorative specimens for the conservatory or drawing-room, or as window plants, and more especially for the information of owners of small plant-houses, in which a stove temperature is not maintained. Although this genus is, strictly speaking, a stove one, good specimens are to be grown if treated as many of the tender greenhouse annuals. The means of increasing most of the species are quadrifarious—by seed, bulbs, cuttings of the shoots, and cuttings of single leaves. Preference is given, in this practice, to the end of January or the beginning of February as the time of sowing the seed, for then the plants have the advantage of all the growing season before them. For the reception of the seed, propagating pans are selected, and one-half their depth occupied with drainage, covered with a layer of lumpy fibry peat, to miss the descent of the finer soil into the drainage below, and compost of the following used,—equal parts of fibry lumpy peat, turfy light sandy loam, vegetable mould, a sprinkling of silver sand, and a

handful of rotten cow manure, well intermixed,—and on the level surface of this the seed is carefully sown and lightly covered. If the compost be too dry when put into the pans, a moderate watering may be given to it several hours before sowing. A bell-glass, or, in the absence of this, a square of glass, placed over the seed pans acts in a two-fold way of protection—from accidental and unnecessary watering, from the syringe or otherwise, and by keeping insects at defiance. When sown, the pans are plunged in a gentle bottom heat, where the atmospheric temperature does not exceed sixty-five or seventy degrees Fahrenheit; this may be in a pit or frame, but where a house of this temperature is it is more convenient. Until the plants become of sufficient size to be potted off, all that is required is, attention to gentle watering with soft water, the glasses removed in dull weather to give strength to the plants, but replaced on clear sunny days, allowing space for admission of air, by raising the glasses a little on one side, and to protect the seedling from scorching, the glasses may have a sheet of paper or a similar article placed over them. In a month, some of the strongest plants are potted off into thumb pots, half filled with drainage, and the same compost as the seed was recommended to be sown in; three plants in a pot, re-plunged in bottom heat, slightly watered, and shaded during intense sun. Care must be observed not to allow the foliage to be spoiled when wet by the sun; watering with weak manure water, when the plants have rooted into the new soil, and syringing lightly in clear weather comprises the treatment until the plants have filled the pots with roots, when a second shift is given into a size larger pot, half filled with drainage, and the remaining space with the same compost. Through March and April the temperature may be allowed to reach seventy-five or eighty degrees, in clear weather, but returning to sixty or sixty-five degrees by night. By the middle or end of May the plants are in a state to receive a final shift into the blooming pots, six inch ones, clean, and one-third filled with drainage, but making an addition to the former compost of more

silver sand, and a good sprinkling of charcoal, broken fine, retaining the three plants in the pot. Seedlings should never be discarded till they have shown their quality. Return the plants to bottom heat after potting, and slightly water them. Shade in clear weather, and water with weak clear manure water twice a week, and never allow the plants to suffer for want of water. They progress strongly in growth until about the middle of July, when they begin to bloom. When the temperature of a house, having no artificial heat except that secured by early shutting up, allows the plants time to develop more fully and more beautifully the splendid monopetalous corolla peculiar to the genus, in this temperature they may be allowed gradually a free circulation of air, and there may remain in glorious bloom, or be removed to the conservatory, drawing-room, or elsewhere, as circumstances require. When natural decay becomes evident, water must be applied sparingly, and finally, as the plants decline in growth, they should be exposed to a dry airy atmosphere until mature, when, at this stage, they may be stowed away during winter, in a dry part of the house; a temperature between forty fifty degrees, dry and airy, is best suited during winter for the bulbs. These remarks have direct practical reference to four dozen pots of seedlings of *Gloxinia* Sir Hugo, in February of the current year, in bloom, and giving a most striking effect to the conservatory here. The plants potted of first are all in bloom; those from often potting. off manure, a succession of bloom equally beautifully to those already in bloom. These seedlings are the proceeds of a three shilling packet of seed, supplied through a respectable nurseryman, from a London firm, notorious for the fine quality of their *Gloxinea*, erect and drooping habit. If spared, and allowed space in the MIDLAND FLORIST, I may, at a future time, detail the mode of propagation of this genus from cutters and single leaves.

GEORGE TAYLOR,

Danson, Berley, Kent.

The Polyanthus.

[Continued from page 273.]

THE pots should now be filled with moss, prepared and applied in the same manner as directed for the border. A place for wintering them may be constructed at trifling cost, and with comparatively little, if any, waste of ground, under a hedge, facing the south, or south-east, by boarding up the back fourteen inches, and the front ten inches, allowing sufficient width from back to front to contain two rows of pots. The shutters for the top should be made of three-quarter inch deal, six feet long, and sixteen inches wide, cross-stayed in the middle and at each end with hooping iron, which looks neater than wood, and hung on at the back with small hooks and bands, that they may be removed with little trouble. A post will be required at the back, in the centre of each shutter, two feet six inches high, a hook, six inches long, and two small staples, one in the post, the other in the back or upper side of the shutter, to fasten it when turned up. This will leave the shutters a little inclining over the plants, which will be better than if they were thrown wholly back, as it will prevent the drip from the hedge falling on the plants. But as this situation will only be fit for them until the beginning of March, it will be advisable to form slots in the pots, so that the boards will slide down at each end, and thereby answer a double purpose, affording convenience for removing them to the opposite side of the garden, which will be much better for blooming, and save expense of materials for an extra place. In my opinion, there is no other mode of arrangement, when in bloom, in which they show to so much advantage as in this. In putting in the pots, great care should be taken to prevent worms getting in, by placing under each pot a piece of slate, the size of the bottom, and covering it with soot, to the depth of half-an-inch. The spaces betwixt the pots may be filled

up with sawdust, or poor light sandy soil. Although the plants are more liable to injury by frost, in pots, than in the border, they are often rendered much more so by shutting them up and excluding air. I do not fear a slight frost, but rather consider it beneficial, as they are then more hardy, and consequently less liable to be cut off in bloom. It also checks them in throwing up winter blooms, which some varieties are very apt to do when kept closely confined. I have at this time a hundred of my pots plunged in a boarded frame, with no other protection at top than strong calico lights, brushed over several times with a solution of alum, which renders them in a great measure waterproof and very durable. Some of them have been in use seven years, and are yet whole and sound. In extreme frost, I throw a mat or two over them at night, but in all weathers, except heavy rain, they are fully exposed through the day. All flower stems that appear from this to the end of January, should be pinched off just below the pips, when they have made an inch growth. During the winter, I collect some good loamy leaf mould, from hedge bottoms, and prepare for top-dressing, by mixing it with one-third of well-decayed cow-dung, frequently turning it over, and keeping it dry, by covering in wet weather.

S. HAMMOND,

New Radford.

Cucumbers.

THE culture of the Cucumber in open fields is a subject which has hitherto received but comparatively little attention. Market gardeners in the neighbourhood of London have attempted it ; but we believe most of them have now abandoned it, the result not having proved sufficiently encouraging for them to persevere in the matter. CUTHILL, in his pamphlet on "Market Gardening Round London," says—"I have seen 14 acres of ridge Cucumbers in one

man's ground; they are grown under glass, and hardened off, and planted out 6 feet asunder, and 10 feet row from row; hand-glasses are put over them. When they begin to grow the ground is well mulched with straw, to keep the earth moist and the fruit clean. Gurkens are sown in the open air at once, in well-prepared ground at the above distances; and I have known one party to cut in one day 200,000 fruit, which were all bespoke by pickle merchants. Ever since the commencement of the Potato disease, however, Cucumbers will not grow round London." This was written in 1855, exactly 10 years after the first outbreak of the malady just alluded to.

That Cucumbers form a somewhat uncertain crop in open fields all must admit, and that some localities are unsuited to their culture must also be conceded; but while their produce is in so much demand as it is not only in London but in all large towns, even among the working classes, we are of opinion that their culture might be profitably extended. At present it is confined to comparatively small spots in one or two counties, the soil and climate of which seem unusually well adapted for their growth. Small, however, as the area at present under Cucumber cultivation is, it is reported to furnish to the London markets not less than 600 tons a week. Of these upwards of 100 tons have been known to be sent to Covent Garden in a single day.

Passengers by the Great Northern Railway on reaching the station at Sandy, in Bedfordshire, or that of St. Neot's, in Huntingdonshire, cannot have failed to have remarked light carts laden with square baskets piled one above the other arriving at these stations as the train approached. These baskets are full of Cucumbers about to be conveyed to the London and other markets. In the neighbourhood of the stations just named, Cucumbers are grown by the acre in the open field, many cultivators having as many as 10 acres at one time under this description of crop. The soil in the neighbourhood just indicated is for the most part a warm, lightish loam or gravel, in every way suited to the growth of this esculent. The ground to be planted

is well prepared during winter, and again deeply stirred and otherwise put in good order in spring. The seed is then sown about the beginning of May, where the plants are intended to grow in rows some 4 feet apart, and the plants stand nearly 2 feet asunder in the row. In favourable seasons they soon push into active growth and cover the ground with Vines, which during the latter end of May, the whole of June, and beginning of July, spread in all directions and come into bearing. During their growth weeding and thinning the superfluous shoots are well attended to, and if the plants should not entirely cover the ground, or wherever blanks occur, Mangel Wurzel is planted in the vacant places. At certain distances apart are also rows of Onions, which being allowed to run to seed serve in some measure both for shade and shelter. Where Onions are not used for this purpose, Rye is employed instead. In this way the ground is induced to produce two or three kinds of crops at the same time, and if one should happen to fail, one or more of the others, as the case may be, to a certain extent takes its place.

By the middle of July or earlier according to the season, the crop is ready for a first gathering, and from that time to the end of September fruit varying in length from 10 inches to a foot, green, straight and solid, is continually being cut, sometimes to the extent of 3 tons at a time, and that from little more than as many acres. What an acre of Cucumbers realises in the way of money we are unable to say with certainty; but they are stated to yield a good profit to the grower, even if he should get no more than 1d. or 2d. a dozen for them. At these prices sums varying from £20 to £60 an acre, according to the season, are said to have been obtained for them. When gathered they undergo the process of sorting, the best being generally sent to London, second-rate kinds to the provincial markets, and what are small, crooked, or discoloured are given to pigs. Ripe ones are saved for seed, so that little or no waste is ever experienced with crops of this kind.

The baskets in which Cucumbers are sent to market are called "pads." In shape they resemble those used


by wine merchants, i.e., square with hinged lids, and they generally hold about 2 bushels. On Thursday last the wholesale price of such baskets filled with excellent Cucumbers was 3s. each in Covent Garden Market.

It has often surprised people who think Cucumbers cannot be grown without a frame, how cottagers were able to produce such fine specimens of them as they frequently do at local exhibitions. There is, however, no difficulty in the matter; indeed, the wonder ought to be that Cucumbers are not more extensively cultivated out of doors during summer than they are. The cottager selects the warmest corner of his garden for them. When the spot has been fixed on, two or three circular holes are made 3 feet across and about 18 inches deep. These are filled with garden refuse mixed with some rough manure and covered about 8 or 10 inches deep with some of the richest and best of the soil that was thrown out of the holes. In the centre are sown four or five seeds an inch deep, and they are protected by a flower pot until they have vegetated. In the fields above alluded to, however, no such trouble is taken. The ground is merely, as we have stated, well stirred and worked, thrown into slight ridges, and the seed sown without any bottom-heat or artificial protection whatever.

Thus it will be seen how easy it is to have plenty of Cucumbers, and with comparatively how little expense in the way of preparation or labour; and that as a crop they are remunerative is evident from the fact that ground which would grow Cereals or root crops in perfection is devoted to Cucumbers even by large cultivators of grain crops.—M.

The Currant.

[Continued from page 291.]

 THE black varieties are somewhat different in their habit, bearing their fruit usually on the young shoots of the preceding year's growth. These, therefore, require to be pruned in a different

manner, at least to a certain extent; the bushes should be allowed greater freedom of growth, but kept somewhat open in the heart, and the branches should be kept at a greater length. The Currant will admit of being trained against a wall, where it grows with great luxuriance, and ripens its fruit somewhat earlier than when planted out in the open quarter. It should be allotted a warm situation, if the fruit is wanted early. A wall having a south or south-east aspect, will be most suitable for those trees which are to ripen their berries first, and others required to be retarded a week or so, may be planted against a west or a north-west wall. You may secure a crop of Currants several weeks after the principal crop has been gathered, by training a few trees against a wall directly facing the north; these will come in for use at a time when their fruit, from their scarcity, will be very acceptable at the dessert table. The texture and quality of the soil have a certain influence in hastening and retarding the maturation of a crop, and, therefore, if you want crops of Currants on the wall to succeed each other, so as to yield a supply for a considerable length of time, it will be necessary to modify the character of the soil, as well as to vary the situation. Thus, the soil in which the trees on the south wall are planted should be rather light, dry, and open, but at the same time not poor or exhausted; while such as occupy a more ungenial position, and the fruit of which is wanted to ripen late, should be planted in soil of a stronger and more retentive or cold character. Currants are very suitable for planting against such walls as cannot be so well used for the more choice fruits. They may be trained against sheds or out-houses with great facility; and are particularly well adapted for covering or concealing any unsightly object. The method in which they are usually trained against a wall is different from those adopted for almost all other kinds of fruit-bearing trees, and requires to be attended to at the earliest stage of the plants. When the cuttings in the bed have made one year's growth, select those plants which have two strong shoots and of nearly equal length, and remove all the other branches which

may be growing near them. If you cannot obtain plants of a desirable form, select as many as you want having one good shoot; cut this back to seven or eight inches from the ground, removing at the same time all other shoots near it; your plants will now have only one upright stem of a certain height, and the following season they will produce several branches at the top. You must be careful to rub off all bulbs which appear on the lower portion of the plant, so that the uppermost may be encouraged to grow strong; but do not allow more than three or four to attain more than an inch or two, and when these have grown three or four inches, thin them out; select the two strongest and best placed shoots, cutting away all the others. These will have made considerable progress at the end of the summer, and the plants may be removed to their places against the wall in the autumn or spring. In taking them up, regulate their roots, cutting off such as are straggling; and the central ones, if very strong, may be shortened a few inches. Give the roots plenty of room in the holes, which should be made large enough to admit of the small fibres being carefully spread out all round. Be careful not to place them too deep, but keep them so that the upper parts of the roots, near the stem, are just barely covered; and the stem should be a few inches from the wall, to which the plants must be inclined. Now drive in a nail in the wall, exactly above and close to the point where the two shoots or branches are produced; then, with a string of matting, tie the branches to the nail, not quite firmly, but just so that in bending the branches down, you may not break them at the joints, a casualty which is very likely to happen, when the precaution of tying them in this manner is not attended to. Now bend down the shoots, one on each side, in a horizontal position, and fasten them to the wall. You must be very careful while engaged in this operation, as, from the softness of the young wood, the shoots are very apt to get broken. These two branches must always be kept in a horizontal position, and at an equal distance from the ground, they being required to form the base of other branches, which they must pro-

duce, and which you must train in a perpendicular direction. Accordingly, at the time of laying or bending down the horizontal branches, you must cut them back to six or eight inches from the point of junction, when fresh shoots will be produced near the base of each. Select the best of these, and train them upwards against the wall, removing immediately all that are not required for this purpose. They should be kept about six inches apart, and should be retained at distances as regular and equal as possible, from the centre, as far as they extend. The first year after cutting the horizontal branches, you may not obtain more than one or two which you can train upwards, but when making the principal pruning, you must always keep the lateral or horizontal branch cut back to six or eight inches of the last upright shoot. Thus every year the main branch at the bottom will be progressing in length, and, at the same time, producing additional shoots to be trained upwards. The latter must be kept almost bare, no side shoots being allowed to grow longer than an inch ; but you must take care not to allow them to run into wood producing no small twigs, or, as they are called, "spurs," which chiefly bear the fruit; and branches growing in an upright direction are very apt to become barren at the bottom, owing to the upward tendency of the sap. When, therefore, you observe them running into unproductive wood, cut off a few inches, so that they may be the better induced to push out fruitful spurs near their base ; and this shortening should always be performed whenever you find it necessary, either for the production of new shoots on the horizontal stems, or of spurs on the perpendicular branches.

With proper attention to these two points, but little difficulty will be experienced in keeping the trees in symmetry and in a fruitful condition. Besides the usual pruning in autumn or spring, a moderate summer pruning is very beneficial to the currant, more particularly when the trees are trained against the wall. When the branches have attained a considerable length, they should be thinned to such an extent that they may not obstruct the light and air; and those shoots which are required

permanently should be selected and temporarily attached until the time when the principal nailing and pruning takes place. Those trees on which the fruit is wanted early must be specially attended to in this respect; for if, after placing them in the most suitable position in respect to soil and aspect, you allow their fruit to be shaded from the genial influence of the sun and air, the beneficial effects of the first condition will be much diminished by the neglect of the second; and in consequence the fruit will not only be later in ripening, but its flavour will be less delicate and sweet.

The method of training and pruning which has just been described is more particularly applicable to the white and red sorts, which chiefly produce their fruit on short spurs. The black currants, on the other hand, are generally most fruitful on the young shoots of the preceding year's growth; and therefore, the fan form of training would be the best for these when trained against a wall. The fruit of the currant is very liable to the ravages of birds at the time it is fully ripe, and though it will generally hang a long time on the branches, if not disturbed, it is always necessary to cover the bushes with some material, such as netting, gauze, or bunting. By this means the fruit may, in warm localities, be preserved fresh on the bushes either in the open ground or against the wall for several weeks, and even till frost sets in, if protected at the same time from drenching rains by a more substantial covering over head.

[To be continued.]

Orchards in Cheapside.

AND why not? We stall-feed milch cows in upper-stories of London houses, bring deep sea fishes and zoophytes under inspection in our drawing-rooms, and grow choice ferns in domestic glass-cases, and we contend it is quite as easy to pick our own

fruit from our own trees in the centre of the city as from the south peach-wall of some snug country house. Our reader, of course, is incredulous, but we mean what we say, and hope, before we have done, to convince him that we speak the words of truth and soberness. The cultivation of fruit-trees in pots in hot-houses has long been practised by nurserymen in this country, in the same manner as grapes are cultivated; this process is necessarily expensive, and entails the necessity of employing highly-skilled gardeners. Mr. Rivers, of Sawbridgeworth, in Hertfordshire, was the first, however, we believe, who proposed to simplify the growing of rare fruits—such as the peach, nectarine, and apricot—so as to render their culture within the means and knowledge of persons of very moderate incomes. To grow peaches at the cost of two shillings a-piece has never been a difficulty; to grow them at one penny a-piece is a triumph, and that he has taught us all to do. In this country the production of the rare stone-fruits out of doors has always been a lottery. We rejoice greatly at seeing our walls one sheet of blossom in early spring; and then comes a day of wet and a nipping frost, as in this very year, and all our hopes are blighted. To afford protection during the few trying weeks of March and April, and to produce a temperature like the dry yet varying atmosphere of the East, the natural home of our finest wall-fruit, without delivering us into the hands of the professed gardener—with his stoves, hot pits, boilers, and other horticultural luxuries, which the rich only can afford—was the desideratum, and that Mr. Rivers has accomplished with what he terms his “orchard-houses.”

These are not the elaborate pieces of carpentry work we meet with in great gardens, but glass-houses, constructed so simply that any person of an ingenious turn may construct them for himself; they are nothing more, in fact, than low wooden-sided houses, with a glass roof. As there is no window-framing, planing, mortising, or rebating required, the cost is very inconsiderable. A span-roofed orchard-house, thirty feet long by fourteen feet wide, with a height to the ridge in the middle of

eight feet, sloping down to four feet on either side, can be constructed by any carpenter for £27 10s.; smaller lean-to houses for very considerably less; estimates for which our more curious reader, who may feel inclined to make an experiment in home fruit growing, will find carefully set forth in Mr. Rivers's original little work, "The Orchard-House," published by Longman. One of these houses gives the fruit grower an atmosphere as nearly as possible resembling the native one of the peach, nectarine, and apricot. The glass affords abundance of light through its ample panes, and its protection gives a dry atmosphere, in which the fruit is sure to set and come to maturity; whilst the vigour of the tree is insured by the wide openings or shutters in the opposite side walls, which admit a constant and abundant current of air through the house when it is thought desirable to do so. The atmosphere produced, beds are made, composed of loam and manure, on either side of the sunken central pathway, not for our orchard to grow in but upon. And here begins the singularity of this new method of culture. Any one who has grown fruit trees, must be aware that their roots are great travellers: they penetrate under the garden wall, crop up in the gravel path, and penetrate into the old drains; they seek their food, in fact, as the cow does in the meadow, moving from place to place, and, like the cow, they, to a certain extent, exhaust themselves in so doing. Under such circumstances, artificial aid is of little avail, you cannot give nourishment to roots that have run you don't know where; but you can confine the roots and stall-feed them, as we do animals, with a certainty of producing the effect we desire, and this we accomplish by putting our orchards into pots.

But Pomona has still an infinity to learn. It clearly will not do to allow our fruit-trees to fling about their arms as they do in a wild state; in the orchard-house we have to economise room; there must not be an inch of useless wood. A little time since, small standard trees, about four feet high, were thought to be the best form for the orchard-house, but Mr. Rivers has come to the conclusion that most light and heat is gained by training

his trees perpendicularly—in the form of a small cypress—thus a stem, four feet high, supports a large number of short lateral branches, pinched back to five or six fruit-buds. This somewhat formal shape has the great advantage of allowing a large number to be congregated together, and of ripening their fruit better, inasmuch as they are not so much shaded with leaves, as those having straggling branches. And now for the manner of feeding them. The pots in which the roots are encased may be considered the mangers of the tree; to these nutriment is given in the autumn of every year, in the shape of a top-dressing of manure, in addition to which, instead of one hole, three or four are made in the bottom of the pot, to allow the roots to emerge into the rich compost of two-thirds loam and one of manure, forming the border.

“But,” says our reader, “this, after all, is but a round-about way of making the roots seek mother earth.”

It may appear so, but in reality it is a very different thing. In the first place, the zone of baked clay placed round about the roots, in the shape of a pot, is a good conductor of heat, which highly stimulates the tree. In the second place, the roots, although allowed to strike into the border, are within call; when the branches are pinched back in the spring, these roots also are pruned; thus the vegetation, which otherwise would be apt to run riot and fill the house with useless leaves and wood, is checked at will. To provide still further nourishment to our nurslings, every two years the earth is picked out of each pot, two inches all round, and six inches deep, and fresh compost is rammed into its place.

Our reader will perhaps smile when he thinks of the old grey and mossy orchards of the country, with their tumble-down trees leaning in every direction, and spreading over acres of ground, and hundreds of yards of wall trees being compressed into a little glass-house, and thus made so shockingly tame by the hand of man, that they are forced to depend upon him, like barn-door fowl, for their daily nourishment; but he would smile, and that with delight, to see the town of orchard-houses in Mr. Rivers's nursery, thus filled with obedient trees, and

bearing educated crops, such as no open orchard or garden ever dreamed of doing.

Trees, once potted and placed in the orchard-house, the trouble attendant upon them is not very much, and does not require any special gardening qualifications. A lady might, with advantage, relieve the monotony of making holes upon cambric and sewing them up again, by this delightful occupation. In the winter and spring months protection should be given against frosts by closing the shutters; very little water should be allowed in winter, as the trees require to hibernate, and water acts as a stimulant. About March, pruning should commence, and should continue through the season until the final autumn pruning, when the orchard is once more put to sleep. All these are matters which afford infinite pleasure to all persons of healthy tastes. The trees are all brought microscopically, as it were, before us; we watch the buds perfected into the blossom, and an orchard-house of peaches in full bloom is one of the most beautiful sights in horticulture. We watch with still greater interest the gradually ripening fruit. Some one has wittily said, "that the orchard-house is the ladies' billiard-table," and certainly a more pleasurable occupation for them, could not well be devised. Peaches, nectarines, or apricots, grown on these pyramidal trees, as they are somewhat incorrectly called, are charmingly ornamental, especially the apricot, the golden fruit of which contrasts beautifully with the green leaves, and what can be more quaint or delicious than to pluck your own fruit from the living tree ornamenting the dessert-table? It will be impossible within the limits of this article to attempt any directions with regard to the management of the different fruit that may be grown in these domestic orchards, we would rather refer the reader to Mr. Rivers's little volume for these particulars.

It is essential to inform our reader, however, that failure, with even the most moderate care, is the exception rather than the rule. We all know how difficult it is to keep the peach and nectarine trees clear of the brown aphid blight which infests them. These and all other kinds of blight, including the red spider, the pest

of hot-houses, can now be most readily destroyed by the application of the new patent composition, termed Gishurst, a kind of sulphur soap, which readily dissolves in water. One or two applications of this compound clears the most shrivelled leaves of these parasites at once, without injuring the points of the tender growing shoots, as the fumes of sulphur or the decoction of tobacco-water are sometimes apt to do. But it may be asked, what is the actual gain resulting from this domestic method of treatment? We reply, in point, size, quantity and quality, the fruit is greatly superior to that given by the old method of wall-trsining.

An orchard-house thirty-feet long and fourteen feet wide will hold, say forty perpendicularly-trained peach-trees, or two rows on either side the centre pathway. These trees in the third year, and henceforth for many years (Mr. Rivers has them still luxuriantly bearing in the twelfth year), will produce two dozen fruit each, or eighty dozen altogether, and by the selection of various sorts and the retardation of the ripening, by the simple expedient of removing some of the trees to an out-of-door north aspect, a constant succession of this fine fruit may be maintained from August to November. The trees should be placed alternately, thus— in the double row, so as to give them the utmost amount of light and air. By this arrangement the fruit is ripened all round, instead of simply on its outer surface, as it often happens with wall-fruit. Another important matter is to shift the trees now and then, let the pot in the north-east end of the house be taken to the south-west; a little visiting in fresh air is quite as beneficial to trees as to humans; and this locomotive quality is another advantage that orchard-house trees have over those planted against walls.

Apples, pears, grapes, figs, and oranges, are grown in this manner with the same facility, certainty, and cheapness, as the choicer stone fruit; and, be it remembered, these orchard-houses are designed for small gardens and for small gardeners. All that is required is a slip of ground open to the sun, just large enough to find room

for the orchard-house, which should, if possible. lie south-east by north-west, in order that the full summer sun may, in the course of the day, fall upon all sides of the trees.

There is scarcely a suburban road-side slip of garden which may not find room for its peach-orchard, and where room and expense is an object, a small lean-to house may be erected for a very few pounds, which will ripen its fruit as well as the larger ones. And where there are no gardens we may make them on the roofs of our houses, as they do in the East. Where there are flat-leads the erection of glass orchard-houses is a simple matter enough. "But what about the blacks?" interpose my reader. Simply this: we must treat the orchard-houses in such situations as we do persons with delicate lungs; we must provide them with respirators; over all the openings left in the sides for the free circulation of air, woollen netting with three-quarter inch meshes must be stretched. The small fibres projecting from these meshes filter the air in the most surprising manner, as will be evidenced by the soot entangled within them by the time they have done their work for the season. Moderate frosts are intercepted in the same manner. A gentleman living at Bow, in the midst of smokiest suburb of London, has in this way produced abundant crops of the rarest fruit for many years; and Mr. Rivers informs us, that he would engage to produce excellent fruit in City orchard-houses, if required to do so. Glass is now so cheap, that we see no reason why the roofs of the houses should not be glazed instead of tiled. By an arrangement of this kind, every citizen may, if he likes, possess his attic garden blooming with fruit, and, after it is gathered, with autumn flowers, such as chrysanthemums. Such glass-roofed attics (only far more lofty and expensive ones) already meet the eye in all directions, built for the use of photographers. We see no manner of reason why peaches, as well as pictures, may not be produced in such situations; and indeed there is nothing to prevent the construction of very fruitful "Orchards in Cheapside." A. W.

Roses.

[Continued from page 286.]

BUDDING may be performed from June to September. Suppose that in July, after a thunder-storm, you receive a twig of a matchless rose. Take it in your left hand ; look out for a plump, healthy, dormant bud ; cut off the leaf, leaving half an inch of the footstalk ; insert your knife a quarter or a third of an inch above the bud ; cut downwards, and bring it out a quarter of an inch below ; remove with your thumb-nail the woody portion, leaving a small shield of bark with a bud in the centre. This is the bud you want to make grow on your briar. To keep it moist, while you are preparing its new resting-place, you may drop it, if you like, into a glass of water ; a snuggler and more convenient receptacle is at hand—your mouth. Mr. Rivers says :—" The operation of budding is difficult to describe. A longitudinal cut, not so deep as to cut into the wood, but merely through the bark, should be made in the clear part of the shoot ; thus T, making the diagonal cut at the top of the incision. I differ from most of those who have given directions for budding, as they make the incision thus, T ; my practice has arisen from the frequent inconvenience sustained by shoots, from standard stocks being broken off by the wind when the cut is made at right angles ; with the diagonal incision an accident rarely happens." Any suggestion from Mr. Rivers demands respectful attention ; it is therefore mentioned here, before proceeding with our own instructions.

On the branch to be budded, make two slits in the bark like the two straight lines which form the letter T. The perpendicular stroke will run along the branch, and terminate where it springs from the main stem ; it must be a little longer than the bud you intend to insert. The horizontal stroke will be formed by a cut across the

branch, and must be a little wider than the bud you want to put in. You must just cut through the bark, without dividing the wood beneath. Cut those slits with a pen-knife on a piece of paper, or on any fresh twig whose bark peels readily, and you will instantly see what their object is. With the handle of your budding-knife, gently push or lift the bark on each side of the perpendicular slit or stem of the T, so as to cause it to rise. Or, you may do it with your thumb-nails. As fingers were made before knives and forks, so thumb-nails were invented before ivory handled budding-knives. Do nothing that can injure or irritate the interior of the wound. If you poke inside it for half an hour, and plough up the skin, you will injure its delicate organization, and in nine cases out of ten you may whistle for your bud. Instead of that, the bark once raised, take the bud out of your mouth, and slip it in gently till it reaches its place. Be as quick as if you wished to spare your patient's sufferings. It is really a surgical operation. The bud once settled between the divided bark, bind up the wound with a ligature of softest lamb's wool. Mr. Rivers advises cotton twist, such as the tallow-chandlers use for the wicks of candles; the finest quality is best. This is certainly far preferable to the bast matting commonly used; but, with deference to that gentleman, not to lamb's wool, which is more elastic than cotton twist. If you have not been clumsy, the bud will grow; and then you must unbind it, and let nothing else grow on the briar either at top or bottom. At the end of two or three summers you will have a handsome-headed rose-tree, from which you may gather basketfuls of bouquets, if you prune it properly,—which sometimes consists in abstaining from pruning it. For more about the Rose, see "Paul's Rose Garden," and Rivers's "Rose Amateur's Guide." Distilled rose-water is an excellent wash when the eyes, not the eyelids, are inflamed by cold winds and dust.

G. GLENNY.

New Florist's Flowers.

[FROM OUR LONDON CORRESPONDENT.]

IT is a fact but little known that there is established by the Horticultural Society of London a Floral Committee for the purpose of judging of the merits of the various Florist's Flowers submitted to them. The old National Society most certainly gave too many certificates, or rather gave certificates to flowers which were no improvement on existing varieties. The meetings are held once a month at the Society's room in St. Martin's place. The first meeting was held on July 28th, when the Rev. J. Dick was unanimously chosen chairman. The censors very wisely will not give certificates unless quite up to the mark. Messrs. Veitch exhibited *Salagiuella Lobbu*, which deservedly received a first class certificate, while *S. Atrovindis* also was highly commended. Messrs. Carter & Co. the well known seedsmen exhibited a new variety of *Clarkea Pulchella*, which, together with *Panicum capillan* was highly commended. Some pretty *Geraniums* and *Cybrids*, crimson and white, which came from Mr. Charles Turner, of the Royal Nurseries at Slough, will be favourites. A pretty *Fuchsia*, from Mr. Smith, of the Islington Nursery, named *Solferino*, attracted a good deal of attention. In *Dahlias*, Mr. Rawlings exhibited *Sarah Boyce*, which the judges requested might be brought again. *Hollyhocks* were abundant, both in blooms and spikes. *Leonora* exhibited by Mr. W. Chaler, Saffron Walden, a distinct and fine deep rose, shaded with buff and brunette, exhibited by Messrs. A. Paul & Son, of Cheshunt, a beautiful rich flower, of a deep claret colour; both received first class certificates. The best others, which were highly commended, were *Countess Dowager Jane Somers*, (Chaler.) Cannot a few more names be added? Fine yellow. *Perfection*. Paul mottled lilac, good form. The following were also very well exhibited: *Norilly*, dark crimson ground, edged with plush.

Harriett, (Chaler), fine lilac ; Warrior, (Chaler), brilliant crimson; exhibitor, Joshua Clarke, and Perfection. Mr. C. J. Perry exhibited a good verbena, of a pink shade and green eye. On the 11th of August the second meeting took place at the Society's rooms. There were not a great number of specimens, but these possessed remarkably good qualities. In Hollyhock, Mr. Chaler shewed Alfred a rich shade of purplish crimson, and was highly commended. In Dahlia, William Dodds, (Keyne), a good flower, of bright yellow ; Lady Douglas Pennant, (Keyne), a good flower, of sulphur colour, received first class certificates, while Joshua Dix, (Keyne), a good flower, mottled purple, blotched with crimson ; Mrs. Col. Vyse, a white, tipped with purple ; Sir Geo. Douglas, (Dodds), good crimson, received labels of commendation ; Messrs. Carter, of Holborn, exhibited their yellow Tom Thumb, Nasturtions; very dwarf, very pretty, very cheap, and very good. Every reader should grow these, they will prove invaluable for bedding and hot culture. Mr. Veitch exhibited some remarkably fine specimens, including some splendid Calceolaries.

Our readers will like to know that the Meetings of the Floral Committee are held at the Secretary's Rooms, 8, St. Martin's Place, Trafalgar Square, London, W.C. the second and fourth Thursdays in April, May, June, July, August, and September, and on the second Thursday in January, February, March, October, November, and December. All plants and flowers may be exhibited, whether the parties exhibiting are members or not, and a report will be sent immediately it is published to the exhibitor.

New and Rare Plants.

RHODODENDRON KENDRICKII VAR LATIFOLIUM.—(Broad leaved Kendrick Rhododendron)—Native of the Bholan Mountains, at elevation of 7,000 feet, when it

was found by Nuttall's nephew, Mr. Boot. It is hardy in the climate of Cheshire. Flowers large, bright scarlet, and very beautiful.

DENDROBIUM RIGIDUM.—(Rigid leaved Tree Popy.)—Discovered by the unfortunate Douglas, in California, but first imported by Messrs. Veitch and Sons, through their collector Mr. W. Lobb. It has proved quite hardy, and is really a handsome plant, flowering in the summer months.

DENDROBIUM ALBO SANGUINEUM (White and Crimson Dendrobium) is a native of Attran River, whence it was imported by Messrs. Veitch and Son, of the Exeter and Chelsea Nurseries; it flowered at Kew last April.

ÆSCHYNANTHUS CORDIFOLIUS.—(Heart-leaved *Æschynanthus*.)—Imported by Messrs. Veitch and Sons, from Borneo, where it was discovered by their collector, Mr. T. Lobb. Flowers scarlet, streaked in the throat with black.

MONSCHÆTUM ENSIFERUM.—(Sword bearing *Monschœtum*.)—It is a native of the Mountain of Oaxaca, in Mexico, where it appears to have been discovered by M. Gleesbrecht. Flowers purplish rose colour. Its specific name seems to allude to a lengthened bright red cultriform appearance of each sterile anther.

BRACHYCHITON BIDWILLI.—(Bidwill's *Brachychiton*.)—Sent by Mr. Bidwill, in 1851, from the Wide Bay district of North-east Australia. Blooms in a stove from Autumn until May, and flowers red.

Florist Flowers.

SIR,—Seeing an enquirer of the best Florist Flowers, and two of which, I am in practice of, I here forward my list, of which I think to be the best for all purposes, notwithstanding there are those, which I have omitted, which if T. H. wanted to grow for a single truss of bloom, would answer his purpose better; however, as the express purpose is not enquired after,

I can recommend the following, for general use, either for home decorations or for the exhibition table, as specimen plants.

CINERARIARS.—Baroness Rothschild. *Turner's* rosy purple, with large white ring, medium disc, fine form, and splendid habit. Brilliant, *Lidgards*, white, light, azure blue edge, and dark disc, a splendid delicate looking flower, free and constant.—Editor, *Dobsons*, shaded blue with white circle; a distinct, and good flower.—Mrs. Coleman, *Turner's*, violet purple, with large white ring and dark disc, good form, and rather dwarf habit.—Mrs. Hoyle, *Turner's*, white, rosy crimson margin, small disc, strong habit, and free bloomer.—Mrs. Livenstone, *Smith's*, white, with purple margin, good habit, fine flower, and very free bloomer.—Optima, *Bousies*, white, deep blue margin, and disc, good habit, and free bloomer.—Perfection, *Turner's*, pure white, rosy carmine margin, small disc, a fine form, very smooth, good habit, and a first class flower.—Pupurea, *Turner's*. Crimson purple, self, good form and habit.—Regalia, *Turner's*. Scarlet crimson light disc, slightly reflexes, a distinct flower.—Sir Charles Napier, *Turner's*, intense blue self, a fine flower.—Wonderful, *Smith's*, bright crimson, white ring, and dark disc, very large, and fine flower.

FANCY PELARYONIUMS.—Acme. *Turner's*. Deep purple narrow white throat and edges. A flower of great substance, good form and habit.—Bridesmaid. *Turner's*. Pale Laven-der edge with white, a fine form; free bloomer, and of a new colour.—Cassandra. *Ayres*. A soft rose, free bloomer, and a most beautiful flower.—Cloth of silver. *Henderson's*. Silvery white, rose blotch, top betals, very delicate, looking flower, also delicate in habit, still it is one, in every collection where it can be shown well, and such a free bloomer that it will oftentimes bloom itself to death. However, the grower must guard against its freedom; and the day he has done with it, as a production of a specimen, nip off all its blooms, also cut it down, before it is too much dried off, and the greatest care is requisite as to its watering.—Evening Star. *Henderson's*. Purple, margined with white, white centre, fine form and habit.—Madame Kouguine. *Turner's*. Crimson purple, light throat and edges, robust habit, and new colour.—Madame Van de Weyer. *Clark's*. Violet crimson, white margin, lower petals flesh, suffused with purplish crimson, a profuse bloomer, and good habit.—Mrs. Turner. *Turner*. Carmine rose, white throat and edges, fine form and habit.—Omar Pacha. *Turner's*. Bright crimson, and a free bloomer, and robust habit.—Othello. *Turner's*. Crimson maroon, light throat and edges. Queen of Roses. *Turner's*. A fine rose, suffused with lilac, light edges, free bloomer, and good habit.

CULTURE OF THE POMPONE CHRYSANTHEMUM FOR SEPTEMBER.—Supposing that the last stop has been attended to, a

constant attendance of regulating the lost brakes, will be required during this month, thereby making good any vacant place occurring in the specimen ; and, as the present month is their freest growing month in the year, a considerable advance is to be made by constant attention, and well supplied with liquid manure every other time of watering. Mildew frequently makes its appearance at this season of the year, and should be taken in time, otherwise a great loss of foliage is sure to be the result. To cure, or prevent this unwelcome visitor, syringe the plants overhead, and dust with sulphur at night, taking care to wash it off next morning, otherwise the action of the sun will greatly injure, than the sulphur will benefit, if allowed to remain on, during hot weather. Should it not be convenient to sulphur once or twice, syringing overhead every day with weak tobacco water, will greatly decrease the mildew, if not destroy it altogether. Preparations for housing next month should be attended to, by making good any repairs of the glass. Lime-washing the walls, and securing plenty of ventilation, which is beneficial, as well as prolonging the bloom.

J. HOLLAND.

Notes and Queries.

YOU mistake our remarks. We did not say that "Not all the books in the world will teach a man to be a gardener; but we said, gardening (or practical gardening) can only be acquired by experience ; that is, we regard books as a very great help to the gardener ; but *experience is the best master* in gardening as in everything else.

HOLLYHOCK.—T. R.—Your seedling Hollyhock is not good for anything except a border flower. Compare it with the standard laid down, and you will see it is anything but up to the mark. **W. M. R.**—Your seedling No. 21 is good, the guard petal rather flimsy. The spike, however, has several good qualities. The one labelled xxx is nothing else but Clio, a new variety raised by Paul and Son. Lizzy improved is questionable. We cannot see the improvement. Surpasse Omar Pacha, too, is not to be distinguished from that variety.

SEEDLING FUCHSIA.—The double (*for the Corolla is very double*) is an excellent addition, provided it will prove constant. The Corolla is also very prettily flaked in the style of Youell's Prince Albert. We believe that this is the commencement of a new tribe of Fuchsias, and we hope our friend will endeavour to cross it with other varieties as well as save seed from itself only.

Calendar of Operations.



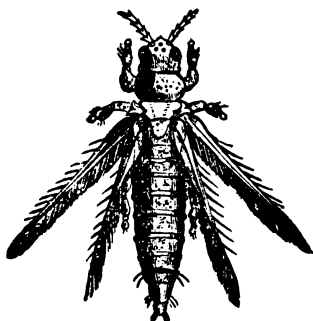
CHRYSANTHEMUMS (Large Flowering Varieties, Grown on Single Stems, as Specimen Plants for Exhibition.)—The present period is the commencement of an anxious time of watchfulness to those who are growing plants for competition. The month of November is not far distant, and then will be decided whether we have advanced in the successful cultivation of this beautiful flower. As, like most other Florist flowers, the Chrysanthemums may be divided into two sections. Early and late flowering varieties. will then be advisable to select the late flowering plants at once, and place them under a south wall, as that will forward them. Be rather liberal at this season in the supply of liquid water, but not injudiciously. Have care to the training of the shoots to the stick. Watch for insects. Earwigs now make their appearance, and commence their work of destruction. Among the points of the shoots use every means for their extirpation. You will best succeed in discovering them after sunset by searching for them with a lighted candle or bull's-eye Lantern. As you perceive the flowering buds, only allow each lateral shoot to mature one well-formed bud; remove the remainder. Should the early flowering plants appear to be too forward, do not place them under glass or in a warm situation till the weather compel you, but provide a temporary shelter ready to protect them, if needed, from slight frost, or heavy rains. I shall, in my next communication, forward you an account of the habits and list of sorts I have now under cultivation for competition at our forthcoming exhibition.—ROBERT OUBRIDGE.—*Stamford Hill, Stoke Newington.*

KITCHEN GARDEN.—The harvesting of the general crops of Onions will now claim attention as soon as they are ready to pull up, which may be ascertained by trying a few: let them be carefully lifted and laid out to harvest under cover of a shed, if it is in a wet time. When the ground is cleared, let it be well manured and trenched in preparatory to planting with Cabbages, to stand through the winter. Thin out the Spinach sown last month, leaving the plants six inches apart, and stirring the surface after thinning. Earth up all advancing crops of Broccoli, Winter Greens, and Cabbages; also continue the earthing of Celery when the foliage is quite dry. Tie up Endive and Lettuce to blanch, and transplant Endive twice this month—in the beginning for the principal supply, and at the end for late crops. Prick out Cauliflowers into nursery beds to strengthen them for the hand-glasses; keep up the sowing of Radish and small salading.

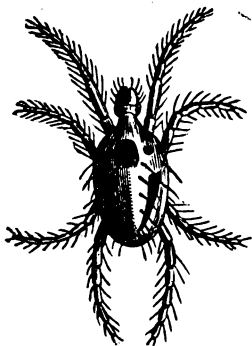
The continuation of our article on "Green Fly" is unavoidably postponed until next month.

ADVERTISEMENTS.

THRIP. *Magnified.*



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GISHURST COMPOUND, PATENTED.

For Preventing and Destroying Red Spider, Scale, Mealy Bug, Thrip, and Green and Brown Fly.

TO be dissolved, $\frac{1}{2}$ or $\frac{1}{4}$ lb., or less, in a gallon of soft water, and applied by means of a syringe or soft brush. On Orchids it may be used in a strong lather, applied by a shaving brush; but on tender young Geranium shoots, a solution of two ounces to the gallon will be found to be sufficiently strong.

Sold in Boxes, at 1s. 6d. and 6s. each.

With Directions for Use, and printed Opinions of Mr. Rucker's Gardener, Lady Dorothy Neville's Gardener, Sir William Hooker, Mr. Rivers, Messrs. Francis and Arthur Dickson and Sons, of Chester, and Messrs. Dickson and Brown, of Manchester.

 For Nurserymen, the large size is recommended; but where the consumption is not large, the Compound will be found to keep its strength best in small boxes.

**NURSERY AND SEEDSMEN SUPPLIED BY
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Hawkins R. S., Weymouth

Henderson E. G., and Son, Wellington-road

Henderson A., and Co., Edgeware-road

Hooper and Co., Covent Garden



OCTOBER.

Beautiful-leaved Plants.

SUCH is the title of a new work now in course of publication. The study of beautiful-leaved plants is always one of great pleasure, and we have but little doubt that this work, unique and intelligible, will have a very large sale; indeed we have only to mention the names of E. J. Lowe, Esq., and W. Howard, Esq., as a sufficient guarantee of its excellence. Mr. Lowe in his introduction says—"We are aware that all leaves are beautiful to the thoughtful and careful observer of nature; the examination of each leaf reveals beauties that to the ordinary observer would pass unnoticed. All things in nature are beautiful, it is only we who overlook, or cannot appreciate, or learn the loveliness of God's creations that have their beauties hid from us.

'Most beautiful the world is yet, and beautiful will prove
Whilst one single God-made creature remains its charms to love;
'Tis man's own sickly blindness makes the world deformed alone.
Who know it most see beauty most, who know it least see none.'

Each part contains three beautifully coloured plates, together with a lively description, culture, &c., as will best be illustrated by the following extracts, which will be interesting to our readers.

BEGONIA REX GRANDIS, (ROLLISONS,) raised from seed in 1858 by Messrs. Rollison and Sons, of Tooting, an herbaceous stove plant, a foot high and of a spreading habit; the leaves are eight inches long and six inches wide, and of an oblong oblique heart-shaped form; colour brownish olive-green, with an irregular zone of white, which shows through the leaf; the stem and leaf covered with scarlet hairs, the ends tipped

with white; on the underside the leaves are a rich crimson; flowers large and of a pink colour. The present magnificent variety, with several others equally beautiful, have been raised from *Begonia Rex*.

Culture.—This hybrid requires a most warm stove all the year, summer temperature, 75° to 80°, winter temperature 65° to 70°; soil, fibry loam, one part sandy fibry peat, two parts leaf mould one part, well mixed with silver-sand, re-pot in March, and give abundance of water in summer, but more moderate in quantity in winter; drain the pots securely.

Propagation.—Take a leaf and cut it into several pieces, plant thickly in a pot well drained and filled to within one inch of the top with the compost, and the remaining part with pure silver-sand; give a gentle watering, and place the pot under a shaded bell-glass in a moist bottom heat; a bed of sand is the best, at the base of each leaf, roots and young small leaves will speedily appear. As soon as the young leaves are formed, take them up, put into small pots, and replace them in a bottom heat till a fresh growth is perceived, then gradually move them to bear full light.


FARFUGIUM GRANDE.—A very interesting new plant; native country, North China; sent home to Mr. Glendining of the Chiswick Nursery, by Mr. Robert Fortune, in the year 1855. A greenhouse evergreen plant, with heart-shaped rounded leaves, beautifully blotched, and spotted thickly with yellow on a dark green ground; leaf-stems one foot long, leaves nine to twelve inches in diameter; an almost hardy plant, as it will stand the winter in the south, but loses its foliage. In a collection of variegated plants it is a conspicuous object, the spots are so distinct and striking. The plant forms a dense bush from three to four feet across and two feet high.

Culture.—Strong fibry loam, sandy peat, and decomposed vegetable mould, in equal parts, will grow this plant well; pot rather freely twice a year, the first time in March, and the second in August. The variegation is improved by full exposure near to the glass of a good greenhouse, or in a cold frame.

Propagation.—The plant sends up side suckers, which may be taken off with roots, potted and placed under a handlight or cold frame until new roots are formed, then re-potted and placed in a cold frame, shaded for a few days, after which they may be hardened off, and placed on a shelf near the glass in the greenhouse.

CROTON VARIEGATUM.—The Crotons are nearly all stove evergreen shrubs. Croton oil, the most powerful of purgatives, is obtained from the seed of Croton Tiglium. Croton Variegata, the variegated-leaved Croton, was introduced into this country in the year 1804; it is a native of the East Indies; a stove evergreen shrub, growing from eight to ten feet high; summer temperature 65° to 75°, and winter temperature 55° to 60°. Readily increased by cuttings taken in March or April. The cutting pot should be well drained, placing upon the drainage a thin layer of moss, above which a light compost of loam and sandy peat in equal parts, and above this an inch of pure silver-sand. Gently water, to make the sand firm, and then put in the cuttings; place a bell-glass over the pot, and use clean sticks to keep the leaves from touching the glass; with a very sharp knife smooth the base of the cuttings, and preserve the top leaves entire; plunge the pot in bottom heat, and shade it from the sun. In six weeks the cuttings will be sufficiently rooted to pot off; after this is done, shade them again till they are established. Every spring add leaf mould to the compost, but do not over-pot. Water moderately, especially in winter. The habit of the plant is somewhat straggling, therefore to form a handsome low bush it is necessary to stop the leader annually, and to train out the side branches. The leaves are about six inches long and one inch and a half wide in the centre. They are very handsome, being densely variegated, striped and mottled with yellow on a green ground. There is no variegated plant that surpasses this in beauty, when well grown and fully exposed, to bring out the bright colours. The flowers are white and green. It is worthy of being grown in every stove, however small.

Afternoons at Kew.

 I AM only a Cockney, yet I am a true lover of flowers, and living in the suburbs have what may very justly be termed a nice little place; I often have thought I should like to write something for the "Midland Florist," and during the last six months I have visited Kew pretty frequently, indeed I may say regularly once a week, during which visits I have noted down such plants as struck me either by their peculiarity or beauty. I therefore purpose giving three or four short articles in these pages embodying these notes. Of course the first must be mainly confined to a description, the others shall embrace plants and specimens seen.

Away we start—one shilling secures us a return ticket—and after passing Vauxhall, Putney, Barnes, and the renowned Chiswick, are saluted with the sound of "Kew Bridge." We get out, and after crossing the bridge, turn to our right over Kew Green, and immediately come to the park gate.

"So sits enthroned in vegetable pride
Imperial Kew by Thames' glittering side.
Obedient sails from realms unfurrowed bring
For her the unnamed progeny of spring."

Here we are, then, at the entrance. I shall not fill your pages with a history of the past, but simply keep to things as they are. A rich ornamental gateway stands before us, erected in 1846; through this we pass on, catching a glimpse of the old palace at Kew, until we get to what is called the Conservatory. I cannot say that this is at all my style of building; however, onward we go, and presently turn into a splendid broad walk, beautifully laid down with fine gravel, and turning our eyes to the left find ourselves at what is called the Orangery. Alas, there are no trees in it! Whether they have all been removed to Buckingham Palace, or whether they have all perished, I know not; but in my rambles round the gardens I have never

stumbled on a single specimen of this tribe. The building is now used to store away during the winter the fine specimens of Cedars, Pines, Coniferæ, &c. We now proceed down the walk and are struck with the beautiful taste with which the beds, filled with numerous varieties of bedding plants, and kept in perfect order, are laid out, backed with lines of Deodars, Junipers, &c. At the end of the walk is a fine though small sheet of water, which, together with the Palm House on the one hand, all glass and iron, and the New Museum on the other, looking like some stately manor, and a charming little vista in the centre, make a beautiful picture. Turning to the right we come to the Tropical Aquarium, formerly the abode of the *Victoria Regia*. And while the *Victoria Regia* is uppermost in my mind, I cannot but express the regret that the culture is so unsuccessful. This year it is scarcely worth looking at; indeed, compared with what it was some years ago, it is a very miserable specimen. The tank in the centre is occupied by water plants.

We, however, turn into the Palm House, one of my favourite haunts—a spot where, among those beautiful exotics, I could spend hours. Many persons suppose that it was built by Sir Joseph Paxton, simply because it is made of iron and glass. The designer and architect, however, was D. Burton, Esq. The ironwork was made at Dublin, while the name of Peto, so famous for building, is coupled with the masonry of the building, which consists, says Dr. Hooker, of a centre and two wings, occupying an area of 362 feet in length; the centre is 100 feet wide, and 66 feet in height to the summit of the lantern: the wings 50 feet wide and 30 feet high. The whole is of iron, stone, brick, and sheet-glass, the latter slightly tinged with green, at the suggestion of R. Hunt, Esq., of the Geological Survey, in order to temper the too powerful rays of light, which is thus in a measure accomplished. The extent of glass for covering this vast building is about 45,000 square feet. The ribs are inserted in enormous blocks of Cornish granite, placed on the most solid concrete. The central portion of the building (138 feet long and

100 feet wide) has a substantial gallery all round at the height of 30 feet from the floor, ascended and descended by light spiral staircases, so as to give the opportunity of viewing the plants from above as well as below by bringing the spectator on a level with the summits of many of the loftiest, and also affording the means of watering the plants from above. The whole interior is heated by hot-water pipes and tanks (the hot-water pipes $4\frac{1}{2}$ inches in diameter, are estimated to extend 24,000 feet in length, and the hot-water tanks 1000 feet), also constructed by Mr. Turner, judiciously distributed under the tables and beneath the level of the floor.

I observed, when I was last at the gardens, a fine bush (I think I may call it) of the *Gynerium Argentinum*, or Pampas Grass; this was about twelve feet high, and was one of the most splendid specimens I have seen. It was in full flower and had large panicles of bloom very much like the sugar cane.

Passing along, we come to two splendid Orchid Houses. I saw here, when I visited this house last, the Butterfly-plant, or, as the label says, *Oncidium Papilio*. The resemblance of the flower to a splendid butterfly is really wonderful, and this is increased by the presence of antennæ, which, together with very long stalk, adds to the deception. I must not, however, begin to describe what I have seen in the house, but reserve that for another paper, and pass on to what is now the Victoria Regia House. Here, in a tank, beside the Victoria, is a splendid aquatic plant, the *Ouveranda fenestralis*, recently brought from Madagascar. The leaves of this plant are formed of fibres, and exactly resemble a piece of lace. Then all around hang splendid festoons of *Cissus discolor* Passion flower; indeed, the manner in which this splendid plant is used to decorate the various houses where the heat will allow it to be grown, is well worthy of imitation. When we were here some time since, there was also a splendid collection of Pitcher plants. The Australian variety, especially, is worthy of attention. Then, there is the Succulent House, where may be found a most remarkable collection of *Aloes*—*Cacti*,

Agaves, &c. Some of the specimens are very beautiful. A little might be said about the *Agave Americana*, which, Dr. Hooker says, "blossoms, not as the story goes only once in a hundred years, but in reality more frequently than other kinds, and throws up a flower stem twenty to forty feet high. The plant, a very large unknown species of *Agave*, with huge, sword-shaped, thick, and fleshy leaves: each of these leaves averages twelve pounds in weight. Two ancient specimens of another and not smaller sort, but which, we regret to say, can now only be seen in a young state, blossomed here in 1844, and attracted much attention: we mean the *Agave vivipara* of Linnæus (*Fourcroya gigantea* of modern authors, a name given in compliment to the French chemist, Fourcroy). The two plants in question had been in the Royal Gardens, first of Hampton Court and then of Kew, probably from the earliest introduction of the species into Europe, upwards of a century ago (in 1731). On one and the same day, in the summer of 1844, each was seen to produce a flowering-stem, which resembled a gigantic head of asparagus, and grew at first at the astonishing rate of two feet in the twenty-four hours. So precisely did the twin plants keep pace with each other, that at the very time it was found necessary to make an aperture in the glass roof of the house for the emission of one panicle of flowers (twenty-six feet from the ground), a similar release was needed by the other. The rate of growth then most sensibly diminished; still, in two months, the flower-stalks had attained a height of thirty-six feet! The flowers were innumerable on the great panicles: they produced no seed, but were succeeded by thousands of young plants, springing from the topmost branches (whence the Linnæan name of *vivipara*); and these continued growing while attached to the stem for a long while after the death of the parent-plants, both of which perished, apparently from exhaustion. Our collection now, therefore, contains young individuals chiefly of this particular *Agave*. All of this family yield fibre for cordage, cloth, &c., and the pulp is fermented and becomes an intoxicating drink."

There is, also, the New Zealand and Coniferous House, a Propagating House; the Australian House; the Tropical Fern House, where some splendid specimens may be seen; the Heath House, containing many fine specimens; indeed, come at what time you will, there are sure to be some specimens in flower. I am aware that I have not gone through all the houses, but I think that I shall not trespass further on your pages. In the November number I hope to give you a few notes from the Palm House.



Hyacinths.

[FROM JAMES CARTER AND CO.'S AUTUMN LIST.]

THESE most beautiful flowers, for which the demand is constantly increasing, are adapted for cultivation in pots and glasses in the house, and the borders in open air, and bloom in almost any soil or situation; but, if perfection of bloom is desired, great care and attention are of course requisite. Many persons have been deterred from the cultivation of these charming plants by an apprehension that their culture was very difficult, but it may be safely affirmed that a more erroneous opinion has never been entertained, especially as the greatest difficulties, the rearing and development of the bulbs during their infancy and early maturity, have been already overcome in the countries whence they are imported. This class of flower (with others of the bulbous family) affords unlimited scope for the exercise of individual taste, and combinations of rare and chaste beauty may be formed by the rich and varied hues of the Hyacinth in large or small beds, patches, edgings, or ribands; perhaps the most interesting mode of culture is that of water or pots, upon which we dilate below; but, in whatever manner the Hyacinth may be grown, it unquestionably deserves everything that can be said in its praise.

SOILS.—Where the highest cultivation is aimed at, the composts should be formed of approved materials, such as one composed of equal parts of thoroughly decomposed cow-dung, well-rotted leaf-mould, and either a light sandy loam, or, what is better, road-scrapings which contain a good proportion of the turf from the sides of the road, and have been laid in a heap and turned about for two years. These materials should be kept in separate heaps in the compost-ground, and when required for use should be united, adding one good barrow-load of silver-sand to every six of the compost; and let the incorporation be thoroughly performed. When the highest perfection of bloom is not of paramount importance, any good garden-soil, with the addition of one-seventh part of silver-sand, will answer every purpose.

TIME OF PLANTING.—This may be performed from the beginning of September to the middle or end of November. To obtain blooms by Christmas it will be necessary to plant the bulbs as soon as they can be procured; for a successional show of blossom within doors, plant some early in September, the middle of October, and the middle of November, either in pots or glasses, the best mode of doing which will be found under the headings of Culture in Pots and Glasses. It is advisable that the bulk of the bulbs should be planted in October to furnish the main crop; for border or open-air planting, commence as soon as the bedding-plants are removed.

CULTURE IN POTS.—When this is done on a large scale it would be advisable to have a number of pots made on purpose, as the ordinary shaped flower-pots are not deep enough for Hyacinths, which root deeply, and, to do well, require plenty of room. These pots should be made nearly upright, and of two sizes: one, for three bulbs in a pot, should be six inches in diameter (inside measure) and nine inches deep; another, for one bulb in a pot, should be four inches in diameter and seven inches deep. Let these pots be well-drained and filled with the compost above recommended, or garden mould, as the case may be, and insert the bulbs, allow-

ing the soil to be half an inch below the rim of the pot and nearly half the bulb above the level of the soil. When the potting is complete, let the pots be placed on a dry level bottom of coal ashes in an open place, and covered over to a depth of from six to eight inches above the bulbs with decayed leaves, sand, or old tanners' bark, leaving it rather higher in the centre than at the sides, so as to throw off heavy rains: in about eight weeks the most forward will be ready to be removed, first into a cool greenhouse, and after a few days into a house with a temperature ranging from 60° to 65° , placed on a shelf near the glass, and freely watered. When the flower-stem is well thrown up and the flowers begin to expand, they should at once be removed into a cooler temperature, whereby the duration of bloom will be lengthened and the colours improved. Should none of the foregoing conveniences be at hand, and parlours or drawing-rooms only be available, it is only requisite that the bulbs be carefully potted in garden mould, the base of the bulb surrounded with silver-sand, and extremes of temperature carefully avoided.

CULTURE IN GLASSES.—For this purpose *single* Hyacinths are to be preferred, as they bloom more freely. Fill the glasses with soft water until it barely touches the base of the bulb; then place them in a dark cupboard, or, what is better, in a cellar totally excluded from the light, until the roots are well thrown out, which will generally take place in two or three weeks, when they may be placed in a window or in a greenhouse, near the glass (but always protected from sudden changes of temperature), and turn the glasses frequently, as the flower has always a tendency to lean towards the light. If these simple rules be attended to, a fine bloom is almost sure to be obtained: the water should be changed when it presents a cloudy appearance; the addition of a minute quantity of guano will generally strengthen the plants and improve the colour of the flowers.

Grand National Dahlia Show.

THIS annual gathering, for so it may be considered, took place, as advertised, at Aston Hall, near Birmingham, on the 20th September, and an exceedingly fine collection was exhibited; some of the flowers were remarkably fine. I cannot give you the names of the individual flowers exhibited until next month, as I suppose that they would be too late for insertion in this month; I shall therefore simply give the names of the exhibitors. Seedlings were remarkably numerous, and in several instances remarkably fine. The smallest number of blooms of each variety allowed to be shown for a certificate was three.

First Class Certificates.—Alba Multiflora (Turner), white, and will be, I think, an excellent addition to our bedders; Lilac Queen (Grant), a rather palish lilac,—this flower is of a remarkably good form; Pluto (Turner), a good deep flower, a flower of the fancy class, being a tipped maroon; Lady Pennant (Keynes), a fine flower, pale yellow; Mrs. Wellesley Pigott (Keynes), pure white, decidedly the best flower in its class; Model (Hodges), a small flower, buff, yet of excellent form; Oscar (Addis), a good flower in petal and colour—red; Harlequin (Grant), a fancy flower, striped yellow, with red markings, quite unlike anything we at present possess; colour even, and of a good shape; Sir J. Radcliffe (Grant), a maroon flower possessing good qualities; Lady Taunton (Turner), a white flower edged with fine crimson, a good-sized flower, and also different to what we have at present; William Dodds (Keynes), a good yellow flower of a deepish shade; Sir George Douglass (Dodds), another fancy flower, tipped and veined with red on a yellow ground; Acme (Perry), an excellent light flower of good form, and a very pleasing variety; Earl of Shaftesbury (Perry), mottled flower, purple, large size and good form.

Second Class Certificates were awarded to Leopold (Keynes), a striped fancy; Jenny Austin (Keynes),

lilac; Mr. Boshell (Rawlins), buff; Queen Mab (Turner), fancy scarlet and white; Mrs. H. Vyse (Church), white and purple edged.

The awards of the judge were as follows :—

NURSERYMEN.

Fifty Varieties.—1. Mr. C. Turner, Royal Nursery, Slough. 2. Mr. J. Keynes, Salisbury. 3. Mr. Kimberly, Coventry. 4. Mr. J. Harrison, Darlington.

Twenty-four Varieties.—1. Mr. Walker, Thame, Oxon. 2. Messrs. Wood and Ingram, Huntingdon. 3. Mr. Legge, Edmonton. 4. Mr. Seeley, Bristol. 5. Mr. Baylis, Wolverhampton. 6. Mr. Heath, Cheltenham.

Twenty-four Fancy Varieties.—1. Mr. Keynes, Salisbury. 2. Mr. C. Turner, Slough. 3. Mr. Kimberly.

*Twelve Fancy Varieties.**—1. Mr. Legge, Edmonton. 2. Messrs. Wood & Ingram. 3. Mr. Walker. 4. Mr. Campbell, Dublin.

AMATEURS.

Twenty-four Varieties.—1. Rev. C. Fellowes. 2. Mr. C. Perry, Birmingham. 3. Mr. Thorneycroft, Floore. 4. Mr. Brown, York. 5. Mr. Horton, Coughton Court.

Twelve Varieties.—Mr. Lofley, Brigg. 2. R. Hopkins, Esq., Brentford. 3. Mr. Hobbs, Bristol. 4. Mr. T. Goodwin, York. 5. Mr. Cooper, Castle Bromwich. 6. Rev. C. Roe, Ipswich. 7. J. Cooke, Esq., London. 8. Mr. Woodward, Coventry.

Twelve Fancy Varieties.—1. Mr. C. J. Perry, Birmingham. 2. Rev. C. Fellowes. 3. Mr. Thorneycroft. 4. Rev. C. Roe.

Six Fancy Varieties.—1. Mr. Hobbs. 2. Mr. Cooper. 3. Mr. Woodward. 4. Mr. Gordan.

Prizes awarded to Seedlings.—1. Lady Taunton (Turner). 2. Acme (Perry). 3. Lady Pennant (Keynes). 4. Jenny Austin (Keynes). 5. Mrs. W. Piggot (Keynes). 6. William Dodd (Keynes). 7.

* Exhibitors could only exhibit in one of these two classes.

Mrs. Chetwode (Walker). 8. Sir J. Douglass (Dodds).

The exhibition was conducted in a manner praiseworthy to the executive, and was an excellent meeting.



How to grow Lilliputian Plants.

[From the *Journal de la Société Impériale et Centrale d'Horticulture*.]

CHINESE gardeners are famed for the skill with which they reduce plants which are naturally of some considerable size, and even large forest trees, to the very smallest dimensions. Dwarf plants are in great demand all over the Celestial Empire, and are generally very expensive. The custom of keeping in sitting rooms little stages ornamented with different things, and even with living plants, induced the gardeners of Europe to imitate the Chinese gardeners, although at a great distance, and to raise plants in tiny pots, generally choosing succulents, of which it is easy enough to obtain very small specimens. As experiments in this mode of cultivation increased, different kinds of plants were taken, and in Germany they at last succeeded in reducing hard-wooded plants and even forest trees themselves to a dwarf state. Thus, this art of the Chinese gardeners is transferred to Europe, and though the result is of no great importance, yet in a general horticultural point of view it is very curious.

The first gardener in Germany who cultivated Lilliputian plants, that is to say, plants with all their parts reduced to the smallest dimensions, was M. Boekel, from whose account we borrow the description of the method by which he attained this curious result. As examples of what he produced, he mentions a plant of Ivy, with twenty-two leaves, which together with its pot, might be covered by a large leaf of common Ivy; also an Oak (*Quercus robur*) 13 inches high, whose

head formed a ball 6 inches in diameter. The details of his mode of operation are as follows:—

He had pots made of a very porous clay, the proper material for which was obtained by mixing equal portions of the clay used in making red and white pots, and adding 4 per cent. of ashes and 1 per cent. of sulphur. For woody plants such as Oaks or others, the pots are very shallow, from about 2 to $2\frac{1}{2}$ inches high, and 6 to $6\frac{1}{2}$ wide; for other plants he used pots from 1 to 2 inches high and broad. These pots he filled with soil or earthy mixtures such as are used in common cultivation; only he adds a third part of very small flinty gravel. The pots are filled up to the brim, and watered from below, by placing them in a dish containing water, or in a tin vessel made expressly for that purpose, with a tap, by means of which the water that is not absorbed is drawn off.

In order to make dwarfs of such plants as Oaks, Elms, &c., it is best to take one-year seedlings. In the spring their ends should be pinched off, to make them form laterals; then when these have grown about 2 inches long, they are to be served in the same way, and the ends of all those which come afterwards are continually pinched off; the plants are then put into a cool place to prevent their shoots becoming too much drawn up; otherwise, in general, they like a sunny situation best. From herbaceous plants cuttings are taken and treated in the same manner. Climbing plants cannot be thus cultivated. To all plants which can bear this sort of treatment liquid manure should be given every three or four weeks; but care must be taken in administering this powerful stimulant, otherwise you may kill your plants.



New Picotees.

TWO new Picotees are described by a correspondent in our contemporary "The Florist," who quite agrees with us in our remarks on the absurdity of holding the National show so late. He says (as we understood also from other gentlemen who had visited Mr. Turners), that about a week before the show took place there was not a single bloom left on all his plants. We have received several other testimonies to the fact of the time fixed being too late for the generality of flowers. We shall, however, refrain from inserting them, as we think that in all probability the present conductors will see the error of their way, and so remove all cause of complaint. Many persons are suggesting a southern meeting, but we hope this matter will not be pressed, and that the National Society will not thus be broken up.

"The new Picotees are Royal Purple, raised by R. Headley, Esq., of Stapleford, near Cambridge, the originator of King James, which has been the parent of very many of the heavy flowers. When I was with him the other day, we had a talk over these flowers, and, notwithstanding the multifarious objects of his attention (for I really do not know what he does not grow), Carnations and Picotees claim still a little of his attention. Besides *this* one, he has another purple, and I saw the old stool layered of a red-edged flower, which will not be let out this season, but which he believes to be the best flower ever yet raised. The one now figured, a child of John Linton, crossed with King James, is large in size, the colour bright and confined to the edge, and the habit and constitution of the plant excellent. This I can vouch for, having seen the entire stock at Slough. The heavy-edged rose is a seedling of Mr. Kirkland's, already well known by many excellent flowers, and is said to have been raised from Marriss' Unexpected. Here, too, we have quality. The habit of the plant is good, though not so strong as the purple ;

indeed, growers of the Picotee know that this is generally the habit of the rose-edged varieties, and yet there is no class more attractive, whether we take the heavy or light-edged varieties. I am glad to find these new ones coming out, for the retirement and death of some of our most celebrated raisers of seedlings, May, Paxley, and others, made me rather fear that we should not see novelties. Notwithstanding the unfavourable nature of the season, the stocks that I have seen look healthy, and, as far as my own little number is concerned, I never had better or more healthy increase."

Rev. A. Matthews.—Heavy-edged colour, a soft rose, much like Unexpected, but flower much larger and more full; strong grower. It was highly commended by the Floral Committee of the Horticultural Society, in July last. This variety was raised by Mr. George Kirkland, of Bletchington, a successful raiser and grower.

Rival Purple, Headly.—A heavy-edged flower, colour very rich purple, good white, without a spot or bar. It is large and full and a fine healthy grower. This was likewise highly commended by the Floral Committee of the Horticultural Society, in July. This variety produces flowers much larger than that indicated in our representation, and is a very great addition to existing kinds of this class as well as the Rose, and is one more of the gems produced by that veteran florist, R. Headly, Esq., of Stapleford.

The same gentleman gives the following as the best varieties in each class:—

Heavy Red.—Dr. Pitman, Mrs. Hoyle, Mrs. Dodwell, Mrs. Normann, Prince Albert, Sultana.

Heavy Purple.—Countess, Lord Nelson, Mrs. Bayley, Mrs. May, Rival Purple, John Linton.


Heavy Rose.—Alice Helen, Mrs. Drake, Queen Victoria, Rev. A. Matthews, Venus.

Light Red.—Ada Mary, Charles Turner, Eugénie Lauretta, Lavinia, Miss Holbeck.

Light Purple.—Amy Robsart, Eliza, Finis, Mrs. Hobbs, Mrs. Eyre, National.

Light Rose.—Ariel, Bertha, Crystal, Mrs. Turner, Mrs. Barnard, Miss Puxley.

Bedding Plants at the Crystal Palace.

 OUT of doors the grounds belonging to this establishment have been extremely gay this season. Both vases and beds in the terrace garden, though now somewhat tarnished by the weather, are nevertheless still highly attractive, the Scarlet Geraniums being extremely brilliant and showy. The vases, too, on account of their large size, have a truly noble appearance, and they are sufficiently numerous to be highly effective; they are filled with Trentham Scarlet, Commander-in-Chief, and Punch Geraniums, arranged in such a manner as to form perfect bouquets of flower. Round the two large semicircles on the terrace the beds are planted with Cottage Maid, a pretty horseshoe-leaved scarlet Geranium; Trentham Scarlet Geranium, which is excellent both for early and late display; edged with Flower of the Day Geranium and variegated Alyssum. The little circular mounds round the bases of the Araucarias and Deodars, which have been so liberally planted in this part of the garden, are occupied by the dwarf-growing Lobelia ramosoides grandiflora, whose dense masses of charming blue flowers are admired by all who see them, and harmonise well with the gay scarlet beds with which they are associated. Beds in straight lines, 100 yards in length along the sides of the principal terrace walk, are planted as follows:—In the centre is Trentham Scarlet Geranium, with a broad belt of Purple King Verbena round it, and edged with Tropæolum Lobbianum grandiflorum, or what is usually called Crystal Palace Nasturtium. These form beautiful masses, which are varied and broken up here and there to advantage by little circular beds round Deodars and Standard Acacias filled with white Alyssum, variegated Geraniums, such as Flower of the Day, Alma, and Brilliant, and Verbenas. The effect of the chain beds round the sunken panels at each end of the terrace garden has been greatly impaired by the failure of the yellow Calceolarias, which here as elsewhere has

occurred to a very considerable extent. The centre consists of Scarlet Geraniums surrounded by a belt of yellow Calceolarias and edged with Mangle's Variegated Geranium. On the raised ground in the neighbourhood of this chain are square masses of Flower of the Day Geranium mixed with variegated Alyssum. Others consist of *Tropæolum Lobbianum grandiflorum* edged with variegated Alyssum and Flower of the Day Geranium. A third is occupied by Lady Mary Fox Pelargonium edged with the two last-named plants. A fourth is filled with Lucia rosea Geranium, and edged with white Alyssum and Flower of the Day Geranium. The clumps of Rhododendrons on the terrace have also been bordered with Geraniums and Calceolarias, which serve to beautify and "light them up," as it were, a little at this season of the year. The robustness and beauty of the Geraniums in the terrace garden especially have been the subject of general remark. They were planted in well prepared soil in the first instance, but in addition to that, great attention has been paid to pinching in the leading shoots and removing all over. This has tended greatly to invigorate and improve their appearance. To give some idea of the time expended in this kind of work, we may state that the entire gardens contain about 150,000 plants, and that these have all to be gone over and examined in the manner just mentioned not less than twice a week.

The more effective beds on either side of the main walk leading from the terrace towards the water temples are planted as follows:—1. A square, has Crystal Palace Scarlet Dahlia, Purple Zelinda Dahlia surrounded with blue Ageratum, yellow Calceolaria, Trentham Scarlet Geraniums, and edged with the grey *Cerastium tomentosum*. The effect of this arrangement is in every way excellent. 2. A circle, is filled with Lady Mary Fox Pelargonium, Calceolaria amplexicaulis, Shrubland Rose Petunia, Heliotrope, and is edged with blue Lobelia. 3. Likewise a circle, is planted with Boule de Neige Geranium is edged with blue Lobelia, and is also very striking. Another white bed consisted

of *Nierembergia gracilis*. We noticed that some of the circular beds in this part of the garden were edged with variegated *Ageratum*, which, when pinched in as this was, so as not to allow it to flower, forms as compact an edging as that of Box. Other beds had their centres filled with it pinched in the same manner, and surrounded with an edging of flowering plants. In large places like this such beds may be admirable for the sake of variety; but the propriety of introducing them into smaller places might be questionable. One of the most brilliant masses in the whole grounds was one of Cottage Maid Geranium, edged with *Cerastium*. Another with the same kind of edging, filled with the old compactum Geranium, was, however, equally good, and literally covered with fine trusses of flowers. A bed of *Dahlia Zelinda* was literally a mass of purple flowers. This had been allowed to grow upright in its natural way; when pegged down it does not seem to bloom so freely. Another bed of the Crystal Palace Scarlet *Dahlia* was also in beautiful condition; the same remark also applies to this variety.

Round the Rosery the banks are literally masses of flowering plants, which, however, in some places showed the ill effects of the dry weather to which they have been subjected this season. Some of the circles dotted about this part of the grounds are also very pretty. One of the best of them was filled with *Tropæolum Lobbianum grandiflorum*. This, when pegged down and kept neatly within bounds, makes a capital bed, whose colour is that of a pleasing orange scarlet, striking, but still by no means oppressive to the eye. Another consisted of white *Alyssum* and Flower of the Day Geranium edged with pink Ivy-leaved Geranium. A third had the centre filled with yellow *Calceolarias*, edged with Tom Thumb Geraniums. A fourth filled with Mangle's Variegated Geranium has been fine, but its beauty is now over. A fifth contained some hybrid variety of *Veronica speciosa*, which, though a good late blooming plant for many purposes, is too sombre in a bed to be effective. It was edged with *V. angustifolia*. Inside the Rosery the beds have been excellent; one of

the best had a mass of Purple Nosegay Geranium in the centre, then a belt of yellow Calceolarias, round which were broad bands of Trentham Scarlet Geranium, Blue Bonnet Verbena, and Lucia rosea Geranium, the whole being edged with the white Verbena called Mrs. Holford. Beds of *Salvia patens*, though a charming blue, have proved unsatisfactory, and will probably not be tried again.

Near the railway station was an admirable mass of Purple Nosegay Geraniums edged with *Cerastium*. The heads of bloom on this Geranium were unusually large and the effect good. A good Verbena bed consisted of Robinson's Scarlet Defiance in the centre, edged with Blue Bonnet and Mrs. Holford, which is one of the best of whites. The large round Dahlia clumps to the left when passing from the railway station to the centre transept have succeeded well this season. They are edged with yellow Calceolarias and Scarlet Geraniums, and are very effective. The freshness and beauty of these, however, as well as of many of the other beds, is somewhat impaired by the wet and stormy weather we have lately experienced; nevertheless, on account of the grounds here lying so high, in ordinary seasons, the plants generally look well even as late as the end of October or beginning of November.

The different trees and shrubs throughout the grounds have thriven remarkably well. Most of the Conifers, especially the Deodars, have made great progress. Among others we noticed an excellent Wellingtonia, not less than 7 feet high, growing in great luxuriance. The Araucarias also seem now to have got quite established, though their progress in growth is but slow.

Inside the Palace two plants of *Dicksonia antarctica* opposite the Sheffield Court have acquired a size and vigour which is quite remarkable. They are both truly noble specimens, and would indicate that other Ferns might be introduced more liberally into the beds and borders here than they are, and with evident advantage. The various Musas and other plants in the warm department have acquired considerable size, and their

large leaves add richness and beauty to that part of the building. The Aquaria, both warm and temperate, are really charming. The different Water Lilies with which they are well stocked grow with a vigour which is quite astonishing, and go when one will, some of them, either red, white, or blue, are almost always in flower.

We may add that the keeping and general management of the place, both out-doors and in, reflects the highest credit on Mr. Eyles, whose skill as one of the most successful of our cultivators is universally acknowledged. *M.—Gardener's Chronicle.*



New Pansies.


THE following Pansies will, I believe, be sent out very shortly by Messrs. Downie and Laird, of Edinburgh, who assure me that they are the finest they have ever offered:—

Alexander M'Nab, a splendid dark self, beautifully shaded and of exquisite form, beating everything in its class. Duchess of Hamilton, white, belted with rich purple; large size, very constant, and a first class show variety. Mrs. Downie, deep gold, belted with bronzy-purple; large, and of the finest form. To this variety the Scottish Pansy Society awarded a first-class certificate, at its meeting, for its superior quality. Mrs. M'Laren, a deep glossy purplish maroon self; very smooth, and of a fine form. Rev. Joshua Dix, a deep glossy plum self, beautifully shaded, fine form. Saturn, gold and rich bronzy maroon blotch, dense, extra show flower. Nymph, white, belted with deep maroon blotch, dense, and of fine form. These are what are being sent out in Scotland. Perhaps one of your correspondents, Mr. Dobson or Mr. Oswald, could kindly give us a list of your best things, and he will oblige,

A SCOTCHMAN.

New Flowers.

[FROM OUR LONDON CORRESPONDENT.]

 AGAIN resume my notes of Flowers brought before us at the meetings of the Floral Committee of the Horticultural Society of London.

THURSDAY, *Aug. 25th.*—Chairman, Rev. Joshua Dix. For Dahlias, first-class certificates were awarded to Mrs. Wellesley Pigott (Keynes), a good white flower, very pure, fine high centre, and being large, promises well.

Flower of the Day (Turner). Another white flower, good size, and possessing very excellent qualities.

Apollo (Turner). A fancy flower of a crimson ground colour, and tipped with white. We have little doubt but that this flower will stand well.

Mrs. Bailhasche (Keynes). A good flower, colour pale lilacy peach, of an excellent habit, and promises well.

The following Dahlias also were commended:—Pluto (Turner), a fancy, but not regularly marked; it has a purple ground, and is white tipped. George Gapes, a buff flower of average size. Neville (Keyne), a bronzy-yellow flower, singular in appearance, but possessing good qualities. Verbena, Dr. Sankey (Edmonds), also gained a first-class certificate. It is of an vory-peach colour, with a good primrose eye, large trusses, and will, I think, be an addition. Good Gladioluses were also exhibited at this meeting. A fine Phlox Mrs. Standish (Standish), also attracted considerable attention.

THURSDAY, *Sept. 8th.*—There is one feature about our Floral Committee which I have no doubt your readers will all admire, that is the not giving of certificates unless the subject is worthy. No certificates on this occasion were given, but I shall give a brief notice of the flowers brought before us:—

Mr. Veitch sent a *Caladium Veitchii*, which has been

described by, I believe, Dr. Lindley as "stemless, like *Colocasia esculenta*. The stalks of the leaves are two feet long, green, slightly scratched with purple. The leaf itself is a foot long, peltate, arrow-headed, of a firm texture, with deep purple on the underside, dark-green above, with a white border and white diagonal veins. It is a beautiful example of a fine foliaged plant, but not having flowered, there is no saying whether it is a *Caladium* or not."

In Dahlias: George Elliott (Turner). A large flower, but I think slightly coarse, colour, rosy purple. Rev. J. D. Dix (Keynes). A flower of great promise in the fancy class, having deep streaks of bright purple on a lilac ground. Neville (Keynes), was again good. *Compacta* (Rawlins), is of good outline, but small. Mrs. Howard Vyse (Church). A good tipped flower of average qualities and of a purple colour.

A new *Fuchsia*, one of the double-flowering varieties, was exhibited by Mr. Wheeler, of Warminster; indeed I may say it is the best I have seen in this class, and is to be named *Marquis of Bath*.

A fine *Cattleya Schilleriana* also graced the room, and came, I believe, from the Messrs. Backhouse, at York.

Our Empty Beds.

NOW that we have so largely adopted the massing system, we often find the emptiness of the beds, hitherto a blaze of glory, a sad eyesore, and deserted and desolate in their aspect. To remedy this, I always keep a quantity of evergreens, of smallish size, in pots; these, during the summer, are placed at the bottom of my garden (where there are numbers of other evergreens), and being plunged in the earth, take no hurt. I have made the same plants do, with a little attention as to re-potting, &c., for six years; and this season I have laid in a stock of fresh ones. I always

plant each variety in *one* bed, not mix them, as is generally the mode adopted, and which destroys their effect. My next-door neighbour and myself vie with each other as to whose beds shall be the gayest, and I assure you that the effect is such as really to astonish any one who has not tried the experiment. I have eight beds in front of my house, which, when this appears in print, will be occupied with *Menziesia polifolia*, *Gaultheria Shallon*, *Variegated Ivy*, *Variegated Holly* (dwarf), *Cotoneaster microphylla*, *Berberis aquifolium*, *Erica Carnea*, *Rhododendron hirsutum*, *Variegated Acuba*, and *Golden Yew*. The latter is too expensive a plant for this purpose; but fortunately from some seed sent me by a friend, I have been able to rear a goodly array of fine-shaped plants. The latter bed I never remove like the others, as it is quite as ornamental as any bedding plants.

My remarks on the massing of one sort of evergreen are also very applicable to general planting. Some time since, I saw in the *Midland Florist* an article on planting Dahlias, recommendatory of the plan of placing three, four, five, six, and even seven plants of one colour all together, so as form a mass, and I thought (for I was then planting my shrubbery) that if this plan produced such an excellent effect in the planting of one variety, why should not the same system be adopted with regard to the planting of evergreens. I accordingly determined to adopt this principle, and I can assure your readers that, compared with the old system, the effect is marvellous. I don't wish it to be thought that this system is here propounded for the first time. Nothing of the sort; for if we pay a visit to our large gardens, we find that *Rhododendrons* are planted in this way. Those at Kew and Streatham are planted close, in order that one dense mass of heads, and none of the individual stems, may be seen, and there the effect is such as one large specimen would yield. I have seen groups of *Rhododendrons*, all one colour, which, when in flower, have had a remarkably good appearance; while out of flower their dark foliage is an exceeding pleasing feature. In my own garden I have a large group of the flowering Currant,

all one shade. This flowering early is a grand object. Yellow Azaleas, too, I have. *Acuba variegata* is another favourite. Indeed I need not enumerate them, for I am sure that any reader who will try this system on a small scale will find that, by introducing these groups at favourable spots, they will add much to the appearance and beauty of their gardens. There are many varieties which I have not enumerated. All those in my beds are well adapted for this purpose, and will make a *winter garden* as well as a summer ornament.

Bath.

G. W. R.



Bulbs.—Seasonable Advice.

WE have received from Messrs. Butler and M'Culloch an excellent catalogue worthy of the attention of our readers. We quote the following passages.

LILIUM LANCIFOLIUM, OR JAPAN LILY.

All the varieties of the Japan Lily should be extensively grown, owing to their exquisitely beautiful flowers, easy culture, and trifling cost. They require no artificial heat, succeeding perfectly in a cold frame, or pit, and even in the open ground, where the soil is light and well drained, protecting them as recommended for autumn-planted *Gladioli*.

When grown in pots they are extremely useful for the decoration of the greenhouse, sitting-room, or verandah. For producing a gorgeous display of flowers, they are unequalled by any autumn-blooming plants.

In November and December, the bulbs should be procured, and at once potted, using good mellow soil, of about equal parts of fibry loam and peat; or decayed leaves may be used instead of peat, where this cannot be easily obtained. The soil should be nicely broken up, and well intermixed with about one-sixth its weight

of any sharp clean sand. In potting, the soil should be made *close*, by being *firmly pressed* together. The pots should then be placed in a cold frame or pit, under the stage of a greenhouse, or a sitting-room where there is no fire; or, indeed, any other cool situation not exposed to wet, will answer perfectly for the winter months. No water should be given at this season, nor until the bulbs have fairly started into growth.

If wintered in a cold frame or pit, air must be given on bright days, early in spring, to prevent the temperature getting too high, which would excite growth too early. As soon as the plants are fairly above the soil, give a good soaking of water, sufficient to thoroughly moisten the mould, and let them be regularly supplied with water after this time, as they may require it.

Now is the time to provide for a succession of bloom, which is best accomplished by placing a portion of the plants together, and keeping them rather close; while those that are intended for late blooming, should be kept cool and as airy as possible, merely protecting them from frost; and as soon as the danger of sharp frost is over, the latter should be placed out of doors, and the former retained under glass as long as can conveniently be done.

The plants should be supported by neat stakes, especially when placed out of doors; and this should not be delayed until they get injured by being blown about by the wind,

When in flower, they should be placed in a dry, airy, cool situation, for the flowers are liable to spot, and soon decay in a close, damp atmosphere; and they are also soon spoiled by dashing rains, so that they are often but of short duration when bloomed out of doors. They will, however, be quite at home in a verandah or sitting-room.

When the flowers decay, give very little more water at the roots, and in the case of late blooming plants, none; and endeavour to get the bulbs well matured, by preserving the foliage clean and healthy, exposing the plants to sun and air. As soon as the stems die down is the proper time for re-potting, as the bulbs

make root early, and they get injured if potting is deferred until spring. The old soil should be shaken away, using fresh material every season.

The number of bulbs to be put into one pot must depend upon the taste and convenience of the cultivator. From four to six good bulbs, in an eleven-inch pot, produce a display of bloom almost unequalled. Single bulbs will, however, flower well in even six-inch pots.

A little weak, clear manure water, may be used with advantage two or three times a week, when the plants are growing freely, and the pots are well filled with roots.

THE GLADIOLUS.

The Gladioli thrive best in a light sandy-peaty soil; but as this is not always to be had, any light rich soil well drained will suit. Stiff clayey soils should be removed to the depth of two feet at least, putting six inches of small stones, brickbats, &c., on the bottom, covering these with thin sods, and filling up with a light, rich, sandy compost; if planted amongst Rhododendrons or Azaleas, they succeed admirably, and produce an effective display.

Ramosus, its seedlings, and other early-flowering varieties, should be put into the ground during October, November, and December, and be planted to the depth of six inches, covering the bulb with one inch of sand before re-covering with the mould; the surface should then be covered with a few inches of old tan, sawdust, or litter. The more valuable varieties, in case of long-continued frost or heavy rains, should have some extra protection, such as a light thatched frame; an old carpet, or piece of tarpauling, will answer perfectly, but must be removed as soon as the necessity for its application has ceased. If by a little extra care and attention the bulbs can be wintered in the open ground, this will be well bestowed, as established patches bloom much more profusely than the same quantity of bulbs would if broken up and disturbed annually.

Where the soil is inclined to be damp, the bulbs should be potted, two or three in a forty-eight pot, and

wintered in a cold frame, or any other cool place, where they will be protected from frost, and planted out as soon as all danger of frost is over. The *Ramosus*, *Cardinalis*, *Blandus* and *Sagittalis* varieties make beautiful pot plants, and for the decoration of the greenhouse and sitting-room window we can strongly recommend them. Culture in pot same as for *Ixias*.

Gandavensis and its seedlings should be planted in autumn for early blooming, and in spring for late autumn flowering, in the manner as recommended for *Ramosus*. This section is pre-eminently the one for this country; it flowers freely, each bulb throwing up several strong spikes of blossom; the colours are rich, varied, and strikingly beautiful. The collections we sold last autumn have elicited the highest encomiums; they are now (middle of August) in perfection, and have been so for the last four or five weeks. No garden should be without a plentiful supply of these favourite flowers.

IXIAS.

This highly-attractive genus of plants combines the most graceful and elegant styles of growth, with a richness and contrast of colours possessed by few genera. It is about a century since they were introduced from the Cape of Good Hope; and yet, in England, they are comparatively unknown. The bright orange-scarlet of *Crocata*, the cerise of *Crateroides*, and the sea-green of *Viridiflora*, are unsurpassed in brilliancy of tint by the same colours produced in any other flowers.

They should be planted in raised beds or slightly elevated patches, in a warm border, three to four inches deep, covering the bulbs with one inch of sand, before re-covering with the mould; the soil should be light and rich, and they should be protected during the winter as recommended for autumn-planted *Gladioli*—which care their beauty amply repays at the blooming season, May and June. It is also necessary that they should be lifted annually, to prevent the roots from decaying, unless the situation in which they are planted is particularly dry.

For the decoration of the conservatory and sitting-room window they are particularly valuable; they should be planted rather thickly, not less than five or six in a forty-eight pot, as the display is proportionate to the number of bulbs grown together. Pot the bulbs in October, or as soon after as possible, using light turfy loam or peat mixed with sand, putting a layer of rotted cow-dung at the bottom of the pot, after securing good drainage. Winter them in a cold frame, plunging the pots in spent tan, sawdust, finely-sifted ashes, or hop refuse, and give plenty of air on fine days, withholding water until the bulbs have made roots and the leaves appear; it must then be carefully given, when there is no danger of frost. Should the winter prove very severe, surround the frame with plenty of dry straw or fern-leaves, which must be kept in place by means of stakes, and cover the lights with either straw, leaves, or bass-mats.

AMARYLLIS.

This glorious tribe of plants is not so extensively cultivated as it deserves to be; yet what have we at the season more showy or effective? So various, too, and beautiful in colour have the different varieties become, that even a small collection affords considerable variety, and may be made extremely interesting. They succeed perfectly in any light, tolerably rich soil, in which there is a good proportion of fibry loam. Twenty-four sized pots suit them best; and all the varieties of Johnsoni should be planted and treated very much according to our directions for the culture of the Hyacinth in pots, except that they should be started in heat. The only point requiring special attention is when to re-pot. This should be done in June or July, or earlier, according as the bulbs have been started early or late. When the foliage dies at the tips, water should be gradually withheld, until the leaves have become quite decayed, when the bulbs should be kept dry till fresh leaves have re-appeared. Aulica and one or two others, however, never die down; they therefore require to be kept constantly in an intermediate or warm greenhouse,

in a growing state, and shifted when the pots have become too small for the bulbs and roots, using at each shift as much fresh soil as possible. In other respects, treat them like *Johnsoni* and its varieties.

RANUNCULUS.

What can be more gay than a good bed of well-grown *Ranunculus*? Their fine forms, richness and diversity of colours, make them favourites with every one. Nevertheless, there are few flowers which more frequently disappoint the grower than the *Ranunculus*. They are liable to be thrown out of the ground in winter by the action of the frost; and in spring they are also subject to misfortunes, which it is our intention to enable cultivators, if possible, to avert. If planted without trouble, and afterwards left to take care of themselves, nothing but failure need be expected; but if growers will procure the roots in proper time, and plant them in accordance with our instructions, success, in most cases, will be sure to follow.

The situation of the beds should be cool and somewhat moist; at the same time, there should be good drainage. The most suitable soil is a hazelly loam. If, therefore, the natural soil be unsuitable, remove it to the depth of about two feet, and four feet in width, replacing it with rich loam from an old pasture; this ought to be rather firmly trodden in, and should form the foundation and principal portion of the bed. On this should be laid a liberal dressing of well-decayed manure, mixing it a little with the under soil; and over this, for the top of the bed, should be laid a layer of soil six inches deep, for planting the tubers in; this latter should be stiffish fibry loam, mixed with well-decayed cow-dung and leaf-soil.

Plant in October, November, or December, and during the spring months. Draw drills, two inches deep, with a small hoe, and plant the roots with the claws downwards, gently pressing them into the soil; the crown of the tubers should be at least $1\frac{1}{2}$ inches from the surface of the bed. For the safety of those planted before Christmas, it will be advisable to protect them from

severe frosts and drenching rains by covering the beds with old tan or dry litter; but this must be removed before the plants appear above ground, which may be ascertained by examination.

As the *Ranunculus* delights in a somewhat moist soil, therefore, should dry weather occur in April and May, give the beds a liberal drenching of water, taking care to wet the foliage as little as possible, and cover the surface with about half an inch of sand, which will prevent cracking, and help to retain the moisture. When the buds begin to appear, and during the flowering season, water must be liberally supplied, not seldomer than twice a week should the weather prove dry.

As soon as the foliage has become quite yellow the tubers should be lifted, gradually dried, and stored in some cool airy situation.

The beds should then be filled with Double German Stocks, French Asters, Marigolds, or any other summer and autumn flowering plants, which, if sown in April, and brought forward in the reserve garden, will be ready for removal as soon as the *Ranunculus* roots have been taken out of the ground.



Taking Hints.

IT is very surprising to see how slow men are to take a hint. The frost destroys about half the bloom on the fruit trees, everybody prognosticates the loss of fruit; instead of that, the half that remains is larger, fairer, and higher flavoured than usual; and the trees, instead of being exhausted, are ready for another crop the next year. Why does not the owner *take the hint*, and thin out his fruit every bearing year? But no, the next season sees his orchard overloaded with fruit small and not well formed, yet he always boasts of that first-mentioned crop without profiting by the lesson it teaches.

We heard a man saying, "The best crop of celery I ever saw was raised by Old John——, on the spot of ground where the wash from the barn-yard ran into it after every hard shower." Did he *take the hint*, and convey such liquid manure in trenches to his garden? Not at all; he bragged about that wonderful crop of celery, but would not *take the hint*!

We know a case where a farmer subsoiled a field, and raised crops in consequence which were the admiration of the neighbourhood; and for years the field showed the advantages of deep handling. But we could not learn that a single farmer in the neighbourhood *took the hint*. The man who acted thus wisely sold his farm, and his successor pursued the old way of surface scratching.

A love of flowers would beget early rising, industry, habits of close observation, and of reading; it would incline the mind to notice natural phenomena, and to reason upon them; it would occupy the mind with pure thoughts, and inspire a sweet and gentle enthusiasm, maintain simplicity of taste, and, in connexion with personal instruction, unfold in the heart an enlarged, unstraitened, ardent piety.

HENRY WARD BEECHER.



Dahlia Show.



ON Saturday, the 17th instant, the match for £10, advertised in the *Midland Florist* to come off at the Waterloo Inn, Stockport, between Mr. Thomas Hampson and Mr. John Wild, as well as our Annual Dahlia Show, took place. Mr. Hampson proved victorious with the following flowers: Lady Popham, Sir Colin Campbell, ditto, Mrs. Edwards, Orange Perfection, Mrs. Critchett, Marchioness of Cornwallis, Yellow Beauty, Rachael Rawlings, Incomparable, Airdale Beauty, Beauty of Slough; while those of Mr. John Wild, whose blooms were rather too young, and yet quite up to the mark, consisted of Mrs. Critchett,

Standard Bearer, Amazon, Alice Downie, Miss Pressley, Sir Colin Campbell, Mrs. Legge, Lord Fielding, Elizabeth Barnes, Lady Popham, Airdale Beauty, Duchess of Northumberland. Together with this contest, the Annual Dahlia Society held its annual meeting, when the following prizes were awarded: one to Mr. Robert Wood, for twelve blooms; second to Mr. Enoch Munday for ten blooms; third to Mr. John Wild for eight blooms; fourth to Mr. Rolley for six blooms; fifth to Mr. Joel Sidebottom. A Premier prize for maiden growers of a Copper Kettle was awarded to Mr. Thomas Rolley. The judges were Mr. Colne, of Didsbury, Mr. Percival, of Hurst, and Mr. Kelsal, of Wimslow. After the show, an excellent dinner was provided by Mr. Rolley, and gave every satisfaction. We shall give further particulars of the flowers exhibited.



Chrysanthemums.

[LARGE FLOWERING VARIETIES, GROWN ON SINGLE STEMS, AS SPECIMEN PLANTS FOR EXHIBITION.]

IN my last paper I said that my intention in the next number was to communicate something respecting the habits of the different varieties; but on second thought, I consider it advisable to defer such observations till the flowering season was concluded; for I think my opinion will be the better matured from such facts or notes I may in the interval gather. As I and others no doubt are growing sorts not previously cultivated for the above purposes, so that their claims for exhibitional purposes have yet to be proved, let me advise those who delight in the culture of this desirable flower (especially those who grow for competition), when they inspect their neighbours' plants, or those that shall be exhibited at the shows they may attend, to provide themselves with a pencil and memorandum-book, and enter such particulars respecting their merits or demerits as they consider would best interest the floricultural community, for I believe this year will

outstrip all past seasons in the production of fine specimens. The exhibition of the original Stoke Newington Chrysanthemum Show, which will be held in the Manor Rooms, on the 7th and 8th of next November, promises to surpass all previous efforts of the members in the display that will be afforded and in the number of extraordinary-size specimens both of large and small flowering plants. Cut blooms, for quantity and quality, for a local show no doubt will stand unrivalled.

There are three things which constitute perfection in plants grown in pots for exhibition: first, quantity and quality of flowers; secondly, the retaining of a healthy foliage down to the conclusion of the flowering season; and thirdly, a compact and robust habit; these qualities must not be overlooked in preference to novelty. There is a system in the cultivation of this plant which some persons pursue, and which I would condemn as being unfair, where the plant is supposed to derive its principal nourishment from a pot limited in size, and that is, the practice of sinking the pots into the earth, and thus allowing the roots of the plants to penetrate beyond the confined state of the pot in search of food. I admit it benefits the plants for the time being, by inducing a vigorous growth, but as there is a reciprocity between the foliage and the roots, so will the leaves suffer, both in colour and also the loss of them, if the roots become mutilated, which cannot fail to be the result in the removal.

Attend to last month's directions in regard to the extirpation of insects and the removing of superfluous buds as they make their appearance. Attend strictly to the regulating of your shoots as they grow, for if allowed to become in the least confused at this season you will have some difficulty in shaping them into their proper character. Should the roots appear on the surface, cover them with some fine mould or decayed manure. Do not neglect the waterings; although they may be exposed to heavy rains, yet the foliage will prevent its finding the way to the roots.

ROBERT OUBRIDGE.

Stoke Newington, N.

TWENTY-FOUR FINEST PANSIES FOR 1860.

DARK SELFS.

Lady Belhaven (Macfarlane).
Mr. T. Grahame (Douglass).
Alex. Macnab (D. & Laird), *new*.
Earl Derby (Campbell).
Charles Macintosh (D. & Laird).

WHITE SELFS.

Cream of the Valley (Hooper).
Fanny (Hooper).
Rover's Bride (Kimberley).

YELLOW SELFS.

Cloth of Gold (Nairn).
Yellow Beauty (Hooper).
Eclipse (Hooper), *new*.
Yellow Model (Hooper).

YELLOW GROUNDS.

William Griffiths (Oswald), *new*.
Mr. Downie (D. & Laird), *new*.
Mrs. Hope (D. & Laird).
Blink Bonny (Macnab).
Miss Hill (Stenhouse).
Constellation (Oswald).

WHITE GROUNDS.

Mrs. Laird (D. & Laird).
Fair Maid (Whittingham).
Amy Robsart (Oswald), *new*.
Robert Burns (Oswald), *new*.
Countess of Rosslyn (Laing).
Venus (D. & Laird).

TWELVE FINEST PINKS FOR 1860.

Mrs. Norman.
Miss Nightingale.
Colchester Cardinal (Maclean).
Miss Eaton.
Arnotdale (Lightbody).
Purity (Maclean).

Beauty (Maclean).
Elizabeth Gair (Lightbody).
Mrs. Hooper (Hooper).
Countess of Rosslyn (Hooper).
Star (Westbrooke).
Mrs. Turner (Hooper).

TWELVE FINEST CARNATIONS FOR 1860.

S.B. Dreadnought (Daniels).
Adml. Curzon (Basom).
C.B. Blk. Diamond (Haines).
Warrior (Slater).
P. P. B Premier (Puxley).
Sarah Payne (Ward).
P.F. Florence Nightingale
(Sealey).

Juno (Baildon).
S.F. Defiance (Puxley).
Sportsman (Hedder-
ley).
R.F. Uncle Tom (Bramah).
King John (May).

TWELVE FINEST PICOTEES FOR 1860.

H.P.E. Mrs. Bailey (Dodwell).
Alfred (Dodwell).
L. P. E. Amy Robsart (Dodwell).
Haiden (Fellows).
H.R.E. Ne Plus Ultra (Turner).
Mrs. Hoyle (Hoyle).
L.R.E. Ada Mary (Smiths).

Miss Holbeck (Kirt-
land).
H.R.E. Aurora (Smiths).
Queen Victoria (Greens).
L.R.E. Mrs. Barnard (Barnard).
Bertha (Morris).

R. R. OSWALD.

Adderley Gardens, Birmingham.

Our Letter Box.

A CORRESPONDENT asks us for a list of the best ornamental Hollies. He does not say for what purpose, and we therefore suppose he is desirous of making a collection. The following are all good varieties, and a selection may very readily be made for most purposes. Silver-striped, Golden Hedgehog, White-berried, Laurel-leaved, Yellow-berried, Golden-blotched, Screw Silver Hedgehog, Narrow-leaved Golden, Golden-striped, Silver-blotched, Weeping, and Dwarf Golden.

I know you will excuse the little trouble I give you, but I want to ask a few questions, which I trust you will not think me too troublesome to answer. I have a small garden, divided by a rose hedge into two, kitchen and flower-garden; my flower-garden is arranged in two long beds, with which I was perfectly content, until I became a reader of the *Midland Florist* last year. I have gained many valuable instructions from your journal, which I think is conducted *excellently*. I want you to tell me what flowers I can get to make my beds look quite gay with bloom next spring, as they invariably look dull in that joyous time. I do not want anything too expensive, but nothing *weedy*, to which I have the greatest objection, and I do not think you would recommend it. By-the-bye, I forgot to mention, that the only glass I possess is a small one-light frame, which I use to strike cuttings from the few plants I can save in the winter to put into the long beds (about 20 yards by 3). Please tell me the best mode of sowing Mushroom spawn, which I think of trying in a loose shed. What is the earliest I can get a cover to bind the present series? I suppose you would forward me one per post.—PELAGONIUM.

PELAGONIUM shall have an answer in our next, as we had already an article in type which will convey the information required.

RHODODENDRON asks, "Will spring flowering bulbs—such as Crocuses, Wild Hyacinths, Snowdrops, do well round the edges of a large bed of Rhododendrons, which is at present in front of my house?" Undoubtedly; nothing will do better. No time must be lost in their planting. Early Tulip, Lily of the Valley, will do well—plant deep.

We have unconsciously and by an accident, which, in our absence, occurred in the printing office, given mortal offence to Mr. Glenny. His name has been appended to an article on the Rose which he did not contribute, and he has resented it in one of his most caustic articles, and in a letter which, though not written for publication, attributes to us motives to which we are utterly strange. We can only regret it, and assure him that, however mortifying it may be to him, it is not less so to us, because we believe he is the last man to build his credit upon another man's writing, and we are the last that would wilfully take a liberty with his name.

BOB will feel obliged if any correspondent will give him the treatment of the *Caladium Picta*.



NOVEMBER.

The Fuchsia,

AND HOW IT SHOULD BE GROWN FROM SEED OR
CUTTINGS.

THERE are such occurrences as killing plants with care, at least it is said so, and we take the meaning to be that people do overmuch to them when they would be better let alone: we suppose they are like old men, of whom the song says—

“Too much care will turn a young man gray,
Too much care will turn an old man into clay.”

It is, however, quite true that thousands of plants are nursed to death; one of the worst acts of kindness is “watering them regularly.” Why it is death to water plants while they are wet; but your “regular” waterers go at it like clock-work. “Every morning regular,” says Mrs. Malaprop, “I waters my plants, I never misses ’em.” Now, two mornings out of the first three they did not want it, and by following it up “regular” the poor things were always in soak. Can anything be more absurd? Heaths cannot stand it a week; Fuchsias soon drop their bloom, and the leaves follow; Geraniums turn yellow and lose their foliage. None but water plants can stand it. But if it be easy to nurse plants to death, how much easier is it to kill seed; too much water will rot it; once let it get dry after it has begun to swell, and you kill it as malt is killed: when it has come up half-an-hour the sun will dry it up; sow it too close, and when it vegetates it fogs off. A slug or a snail will clear away a whole panful in a single night; sow it too deep, and you never see it. In short, whatever annoys us with our large plants, is far more mis-

chievous with the small ones, and seedlings in particular. As many cultivators are endeavouring to raise new varieties, and many more would set about it if they knew the most ready way, we shall begin with the seed sowing, for on that depends much of the success; a little carelessness in the start will upset all our hopes.

The soil in which seed should be sown must be light and moderately rich, two-thirds loam from rotted turfs, and one-third dung rotted to mould. It is essential that the dung be thoroughly decomposed.

Get a proper seed-pan,—we like Ball's square ones the best of all—put a little drainage over the holes and on the bottom, fill it up with the soil described, but it must be thoroughly mixed before using. Having filled the pan to the top, knock the pan on the table to settle it a little, and then with the bottom of another pan, or some other flat subject, press the surface perfectly even, then contrive somehow to sprinkle the seed equally over the surface, for you will not find more than twenty in a half-crown packet, and whatever number there is, should be equally distributed over the whole surface; with a fine sieve, cover it, and no more than cover it, with silver sand, or some of the same compost. We prefer silver sand because you can see when the soil is hidden, and you know then the seed is covered. We are presuming that the compost was in proper order when the seed was sown, that there was a proper degree of dampness, and that the pan now only wants shading for a few days, and the temperature that of a greenhouse. The pan must be carefully watered before it is allowed to get dry on the surface, and in due time we shall have the seed come up; but if the seed be allowed to get dry after once swelling, it will never move again. We who have the convenience, start almost every kind of seed we sow in the stove, but then we are always on the spot and watching, so that we gradually inure it to the cooler climate. As soon as the plants are large enough to lay hold of, we prick them out round the edge of a pot, so that the roots should soon reach the side, which greatly assists their growth. We should put about half-a-dozen round a four-inch pot, they will

grow well there for weeks until they are large enough to put singly into three-inch pots. They should be kept from the first where they can have air in fine weather and light always, but they must be protected from sun until they are fairly established. As it is important to ascertain the natural habit of a new variety, the plants should be allowed to grow as they will without any check; when the roots have reached the side of a three-inch pot, they must be changed to those of four inches, and shifted again when they fill them. In fact, if we are desirous of growing plants up into specimens, the rule must be to shift always when the roots reach the side of a pot, and before they begin to mat. When any of them bloom, we have to consider whether they are good enough to keep in our collections, and if not, get rid of them. The most ugly Fuchsia that ever was grown would please some people, and if we cannot profitably dispose of them by sale or exchange, give them away; but if nobody will have them, throw them away, there are sure to be some good enough to keep, and will repay us for the pains we have taken.

With regard to the season for sowing, we always prefer early in the year, say February, having the convenience of stove and greenhouse; but if we had neither, we should not sow till March.

PROPAGATING AND GROWING SPECIMENS.

There is no plant more easily propagated than the Fuchsia. The new growth, when an inch to two inches long, taken off, the base will strike in a few days under a common handglass, in the open border, if shaded; but as we may have something very choice, as is the case with a new flower, we should prefer a pot or pan, because we can shift it about, and always place it where it is constantly seen. We should, after proper drainage, fill a pot, so that when knocked on the table or potting bench to settle it a little, it should sink half-an-inch from the top or edge of the pot, and then we would fill up to the brim with silver sand; having prepared the cuttings, we should thoroughly wet the sand, and make

a mark with the edge of a bell-glass that will come within the edge, to guide us as to what space they may occupy and be covered; merely stick them into the bottom of the sand to touch, but not to enter the soil, and put on the glass, the inside of which must be dried every morning. If the weather be dull, the glass may be left off half-an-hour in the morning, but at no time till they have fairly rooted must they have the sun, and after they have struck root, the glass may be left off altogether. Later in the season, any of the tops will strike under a handglass; in the open ground they only require shading and watering.

During the time cuttings are striking in pots or pans, the sand must not be allowed to dry through, for they would go off directly past recovery; when they have struck root they will begin to grow, and may then be potted singly in three-inch pots; and if bushy plants are desired, the top must be pinched off. This induces side growth, and when any of these side branches grow at all out of bounds, they must be stopped in the same way and be constantly watched, for it will often be found that some branch goes faster and further than it ought, and would, if left alone, take up the growth to the damage of all the rest of the plant; so that we ought always to be on the watch to stop unruly shoots, and indeed all shoots when they are long enough, because the symmetry of the plant must be preserved through all its career. But we may prefer to grow a tall pyramidal plant, in which case we must not stop the leader, but merely regulate the side branches as they grow, and so curb only such as grow out too vigorously for the rest of the plant, and which would spoil the form. So long as the *Fuchsia* is kept growing, constant shifts must take place, and if the plant is allowed to rest, it must be watered very seldom while not growing; when the plant starts again, let it be judiciously pruned; all the weak and wiry shoots must be removed, and all the branches that cross each other, or that are in each other's way, must be shortened or altogether removed, as may be required. We must recollect that the new growth will be strong, and unless

we have prevented all confusion by taking away enough of the old wood to simplify the skeleton, as it were, from which all the new growth is to spring, we shall have a confused mass of shoots. While the buds form and begin to open, rub off all that would grow inwards, or form branches where they are not wanted, and re-pot the plant in a pot a size larger; but generally a year-old plant is large enough for anything. If you desire to form a standard, the plant should not be checked from the first, but the side shoots should be checked, and as the plant advances, the lower ones should be cut in close, and only the top half-dozen shoots should be retained with the leader. When the stem is tall enough for your purpose, take off the top, and as the few side branches near it throw out laterals, remove such as would confuse the head, shorten those which grow out too far, and attend especially to the form of the top. These, like the bushy specimens, must be regularly shifted as they grow, and the rule must be the same when the roots reach the side of the pot and before they begin to mat. You can always form the head as you please by shortening, cutting out, or allowing branches to grow, as they may be in the way or needed. Before these begin to grow, after resting, they must be carefully pruned; no weak branches must be left, and the strong ones must be brought in to form all round the head alike. The buds that start down the trunk must be rubbed off before they make any growth. The saving of seed must and will be a matter of chance; when we have many berries upon the plant, we are not to calculate that they are so many pods of seed, for sometimes not one in ten has a seed in it. There are several ways of collecting the seed when ripe; we find the easiest way to be to squeeze them on blotting paper, which soon dries up the juice and shows the seeds, which can be scooped off the paper; others let them dry and pick them out, but we have found less trouble in squeezing the berries on paper one at a time, and when one paper is full, that is, wetted all over, get another, and when dry collect it, put it in dry paper bags till wanted for sowing. If we want slow growth,

smaller plants, and closer foliage, let the stuff we shift in after the first three-inch pot be one part loam, one part earth, and one dung, instead of two of loam and one of dung.

GEORGE GLENNY.



The History of *Devoniensis*.

SOME little discussion with regard to the derivation of the beautiful rose *Devoniensis* is now taking place, the question being as to whether or no it is a rose of English or French descent. We extract from our contemporary, the "*Florist*," the following particulars communicated by Mr. William R. Willcocks, gardener to John Murray Aynsley, Esq., Underdown, Ledbury, Herefordshire, who, it will be seen, was formerly with the Messrs. Lucombe, Pince, and Co. He says, "I will endeavour to give your readers some little account of this rose so far as I am concerned in the matter, and in doing this I will be as brief as I possibly can. In the year 1840 I was in the employment of Messrs. Lucombe, Pince, and Co., in the plant department of their nursery. In August of that year that firm was solicited to send some plants to a horticultural exhibition at Devonport, which was accordingly done. Mr. Nott, the foreman, took me with him as an assistant. Devonport being forty miles and upwards from Exeter, we started with a van-load of plants on Wednesday afternoon, and arrived in Devonport on the Thursday. After the plants were put in their proper places, two or three hours were given me to see Devonport; and as I never had before seen a man-of-war, and a great many other things connected with the Royal Arsenal, I very much enjoyed myself. A young man of the name of Short, from Messrs. Ponleys, of Plymouth, was my companion. I returned to the Town Hall, in which the exhibition was held, at the time appointed for me to be there; I

had not been there long before an elderly gentleman came to Mr. Nott with a rose in his hand, and asked him his opinion of it, which was given favourably, and I was immediately dispatched to see the plant from which the flower was cut. As I write from memory, I cannot recollect the name of the place, but I rather think it was Stoke Damerel: be that as it may, I had a good long walk. Mr. Foster—for that was the gentleman's name—sent a lad with me to show me the place; I believe it was his own son; and in a small garden, and growing by the side of a wall, I saw the original seedling plant. According to my instructions I noted down in a pocket-book the number of branches and the length of them, and cut some fresh flowers to take to Exeter. On my arriving at the place of exhibition, we repacked our plants and started again for Exeter, where we arrived on Friday. The first person I met in the nursery was Mr. Pince. I presented the flowers to him, and I shall never forget the smile that came over him when he exclaimed—

“‘Willcocks, I never saw such a beautiful rose before, what's the history of it?’ That I left Mr. Nott to explain. Mr. Pince immediately put himself in communication with Mr. Foster, and the first letter that was written was read by Mr. Pince to Mr. Nott and me, and I then went and posted it. The correspondence was one of short duration, for in a few days I provided a hamper and all things requisite for packing, and saw Mr. Nott start by the coach for Devonport to bring away the seedling rose from the place that gave it birth. The next day Mr. Nott returned with his ‘darling child,’ as he called it. The plant was unpacked by Mr. Pince, Mr. Nott, and myself; Mr. Pince counting the branches to see if they tallied with my statement, and they were found correct. The plant was cut up for cuttings, and I had the pleasure of putting in the first of them into the Exeter Nursery. However, I left a few days after that to go as foreman to Mr. Dunsford, then gardener to Baron Dimsdale, in Hertfordshire, and I heard no more of the rose till I saw by the papers that it had been exhibited at one of the

Horticultural meetings in Regent Street, under the name of *Devoniensis*.

"Now as regards the origin of this rose, I was given to understand at the time that Mr. Foster, who was a returned naval officer, passing through the market one day, he became enamoured with a rose in a small pot, and carried it home and put it in his window. After the flower dropped, a seed pod succeeded it, which ripened in the window, and for curiosity it was sown under the window, and that was the seedling plant which I saw, for it was growing under a window. As it is nineteen years since this occurrence, and, as I have stated before, I write from memory alone, should there be any inaccuracies, and if this should meet the eye of Mr. Pince, no doubt that gentleman will most readily put me right. This, therefore, I trust will prove to the reader of the *Florist* that *Rosa Devoniensis* is a true English rose."



Spergula Filifera.

SEVERAL of our correspondents have lately inquired whether or no we have had or received any account of the practical cultivation of this moss, which is stated to be so excellent a substitute for grass in the lawn, requiring no mowing. A correspondent, "Iota," in this week's "Gardeners' Chronicle," gives the following particulars:—

"I bought a half-crown packet of seed in April, and, according to Mr. Henderson's instructions, mixed it with some twenty times of its bulk of fine sand, and sowed it in a bed with very little heat. It was slow in making its appearance, but at last came up thickly and evenly over the bed, when it was shaded with a screen of cloth thrown over stakes to protect it from the sun, but with free access to the air. As long as it was carefully watered it made good progress, though slow; but eventually, through neglect of watering, owing to the illness of my man, who has since left me, by the end of

May nearly every plant was dead ; so much so, indeed, that I gave orders for the removal of the bed. Happily, however, this was not persevered in ; for by subsequent care what remained were planted out in health and strength late in June, and some more plants made their appearance in the seed-bed. The former were watered for a fortnight after their removal, and then left to their own resources, and are now patches of from four to six inches in diameter, the whole under-side of which is a dense mass of rootlets, so that they will divide into from six to twelve patches each. To-morrow I purpose laying down one of the three divisions of my lawn with them, and by next summer I hope to show any one a good specimen of a *Spergula* lawn. The seed-bed is now a complete velvet mat, one-half of which consists of seven plants originally, before they ran together, and is now about a square yard of pile. Both these plants and those which were removed have seeded freely, and I regret I did not save the seed, because seedling plants have with me done better than rooted cuttings. In both cases, however, the progress at first has been most slow, and the plants have required when young, as Messrs. Henderson advised me they would, great care and attention. But when well established they are hardy enough, though they fully appreciate any attention paid to them. A fortnight ago I pulled up a plant of Groundsel from the seed-bed, and around it were about forty small branches of *Spergula* from half-an-inch to an inch and a half long, each with many rootlets ; these I had planted under a handglass and shaded, but they have not yet begun to move, though I have no doubt they will all do so. Worms have apparently done no injury to either those in the seed-bed or those planted out. Weeds give some trouble at first, and perhaps, as Mr. Hibberd says, the thick pile may be a *nidus* for the seed of weeds. But I doubt if even its own minute seeds can penetrate through to the ground, for no Turkey carpet is so thick and matted. On the whole, I expect from it all that has been promised.

IOTA.

“ Oct. 18.”

The Mildness of the Season.

NOT very mild just now, I fancy," a reader says ; but really I think every one will agree with me that we have had a remarkably prolonged season ; the great slaughter, or battle, in which the redoubtable Jack Frost overcame in fight our armies of Dahlias, scarlet Geraniums, Fuchsias, and other outdoor ornaments, taking place so late as the 20th of October, fully three weeks later than the ordinary time. I think myself, and I am an old gardener of eight-and-thirty years' experience, that take it all for all, we never perhaps had a season so favourable to gardens and gardeners. I don't mean that there was never a season in which some of the florists' flowers have not had a better chance of developing themselves. Up to the 18th of October my garden, or rather the garden of which I had the charge, was a perfect mass of bloom ; and I think that it may not be uninteresting to give just a few details, in order that we may compare notes. First of all, on this 14th of October I gathered a bunch of Lilacs, while Strawberry blossoms were quite abundant. And while I am talking of things out of season, I may as well notice what surprised me much, passing through Kew to go to London—for I only live six miles from the former place,—on the Green I saw in full bloom a Horse-chestnut, the blossoms of which were large, perfect, and healthy. This has been seen by hundreds of other persons as well as myself, and I think all agree that it is a remarkable case. I do not say that this is a sign of how mild it has been, by no means ; the flowering of this Horse-chestnut may be attributed to a great many other causes, but of this I will speak at some other time. One of the principal ornaments of the garden till even now has been large tufts of the beautiful and newly-introduced Pampas Grass. Fortunately for me, I was a Fellow of the Horticultural Society of London, and by this means procured a packet of seed, which I sowed, and which produced me an

abundance of nice healthy plants and magnificent ornaments. Of the Roses I have in bloom; perhaps the most prominent is, however, *Geant des Batailles*; not that this is the only one, for a great number of my hybrid perpetuals are now in full bloom, only stopped by these sharp nipping nights. Fuchsias have been very gay even to the last, as have also scarlet *Geraniums*, *Ageratums*, *Mignonette*, &c. In my vegetable department I also have been remarkably fortunate, having gathered, on the 13th of October, a splendid dish of peas. *Dickson's Favourite* and *Early Warwicks*, some in July.



Useful Explanations of Definitions.

THERE are a great many terms in general use with scientific men frequently employed in horticultural and floricultural works, which puzzle many novices, and which we are frequently asked to explain. The following useful explanation of definitions will we think, therefore, be found extremely useful:—

SOIL.—The surface-earth, of whatever ingredients it may be composed. It may be a clay soil, a sand soil, a calcareous soil, as the surface is composed of clay or sand, or clay strongly mixed with lime.

SUBSOIL.—The earth lying below the ordinary depth to which the spade or plough penetrates. It is sometimes of the same nature as the top soil, as in clay lands; in others it is a different earth, as when a coarse gravel underlies vegetable mould, or when clay lies beneath sandy soil.

MOULD.—A soil in which decayed vegetable matter largely predominates over *earth*. Thus leaf mould is principally composed of rotten leaves. Dung mould is dung reduced to a powdery matter; heath mould, a black vegetable soil found in heath lands; peat mould, forest mould, garden mould, &c.

LOAM.—Clay, or any of the primitive earths, reduced to a mellow, friable state by intermixture of sands or vegetable matter, is called loam. Clay lands, well manured with sand and manure, are gradually turned into loam.

ARGILLACEOUS, from the Latin *Argillaceus*, is soil principally composed of clay.

ALUMINE.—Generally employed to signify pure clay ; it is, chemically speaking, a metallic oxide. Aluminium is the metallic base and an elementary substance.

It is generally known that the diamond is pure carbon (charcoal is carbon in an impure state), but it is not as generally known that the *ruby* and *sapphire*, two of the most beautiful gems with which we are acquainted, are composed almost solely of alumina, or pure clay in a crystallized state.

SILICIOUS.—An earth composed largely of silex, silec, or silica, is considered to be a primitive earth constituting flint, and containing most kinds of sands and sandstones, &c. China or porcelain ware is formed from silica and alumina united, *i.e.*, from silicious sand and clay.

CALCAREOUS.—A soil into the composition of which lime enters largely. Limestone lands are calcareous ; pure clay manured freely with marl becomes calcareous, for marl is mostly clay and carbonate of lime.

ALLUVIAL.—Strictly speaking, alluvium, or our alluvial soil, is a soil formed by causes yet in existence. Thus a bottom land is formed by the wash of a river. It is usually a mixtnre of decayed vegetable matter and sand.

DILUVIAL.—A diluvial soil, or deposit, is one formed by causes no longer in existence. Thus a deposit by a deluge is termed diluvial.

The word is derived from the Latin *diluvium*, signifying a deluge.

FRIABLE.—A friable soil is one which crumbles easily. Clay is adhesive, or, in common language, clammy leaf mould is friable or crumbling. Clay becomes friable by exposure to the air or frost, or by additions of sand and vegetable matter.

Rhododendrons in Pots for Blooming.

AS soon as the flower has gone by its perfection, remove very carefully the bunch of footstalks of every truss; but you must be very careful not to cut off lower than the lowest flower, because at the very end of the branch there are three or four buds which must be preserved for the next year's branches. Now turn out the balls of earth whole, and plunge them into a regular peat bed, at such distances as will allow of a season's growth without their touching each other; before they begin to grow, remove or cut back any branch that seems too long for the others, for it will be often found that, besides a neat bushy plant, there will be one or two of the stems run up far above the rest, and although their bloom saves them until the flower is gone, they should be removed, or at least cut back, or the plant would in another year be out of all character, for the growth at the ends of these vigorous branches would take the lead, and the bushy or handsomest part of the plant could not even set for bloom. When these plants are well watered, so as to settle the peat earth about their balls, they will make much more healthy and rapid growth than they could in their pots, and by the autumn will have set their blooms, or otherwise. There will be some set with buds all over, others partially; but from this bed you take up and pot all the plants that are to bloom in them, and by keeping a good stock of the family, you are enabled to select as many as you require. The *Rhododendron* will not flourish the less, nor be the worse from pulling up every autumn, and planting out again every spring after bloom, if the sorts be hardy; and those who adopt this system possess the means of beating everybody who relies on the pot culture alone. The plants are the better for making their growth in the comparatively poor peat earth, and they bloom the better for bringing forth those flowers in the richer earth that is made to surround those fibres

in the pot. Plants that are only partially set for flower, are not worth the trouble of potting.

STANDARDS.—For the most part the tree Rhododendrons of the nursery are portions of large ugly-grown bushes, from which the most straight and strong stem is selected to grow, and the other portions of the bush are cut away. Whole quarters are filled sometimes with overgrown Rhododendrons, naked at the under part, and most of the stems grown up to more than ordinary height. In these the tallest and best stem that rises all the way from the ground is marked for saving, and all the rest removed—no matter whether the selected stem grows upright or stands out sideways: this part of the affair is accommodated by digging up the root, and replacing it in the ground so much canted on one side or the other as to bring the stem upright. In doing this, if the root, as it often happens, is very spreading and clumsy, half, or often a good deal more of it, is chopped off; a whole piece of standards may be thus soon formed. The thing may be better understood by the following:—The side shoots are immediately cut off close, half the root of some, when they are too big, is cut off also, and they are planted in the ground, so that the stem is completely upright. If this be a very common Rhododendron, a good variety is grafted on the top; if, on the contrary, it be a good sort, the top three shoots are left to grow, and all the others are cut close, but the three top ones are cut back to leave three eyes each to induce side shoots. At the end of a season of growth there may be head enough, if not, the most vigorous of the shoots must be stopped or cut back again. The regulation of the head till it becomes a good specimen may take some time, but no shrub will more readily obey the cultivator if he begin in time. But if we have to rear standards from the seed-bed, we allow them to grow upright until they are as tall as we require the stem, contenting ourselves with cutting off the lower side branches, and leaving the growing part only one-third down the whole height; and when there is as much straight stem as is required for the trunk of the tree, we may cut up the

sides to within three good branches. Upon these young and healthy stocks, with roots of a healthy dimension, and in the soil they are raised in, do we graft the better sorts of the plant; but, as we do not know the value of the stock itself until we see it bloom, they are allowed to bloom before they are finally cut to form the heads. If there be any merit in the variety, we should naturally prefer the whole tree to a grafted one: as there is less interruption to its progress, it soon attains a good head, and, if there be any odds, sounder than a grafted variety. Except, therefore, cutting the lower branches up every season, so as to leave only four or five strong shoots at top, we recommend letting the head have its own way till it flowers. If it prove worthless or poor in the flower, you may inarch or graft it by cutting back the three or four branches at and near the top, and graft on each, or cut them entirely in, and put one graft only on the leading stem. The one produces a head sooner than the other. In humouring the growth of straight stems for standards, the stem should be trimmed quite up till it is as tall as it is wanted, when you may begin to form the head by trimming close up to the last year's growth, and the head may then be made of any form or plan, by encouraging the growth where we require it, and pinching out the heart where we wish it to be checked.

GEORGE GLENNY.



The Season.

DESOLATION appears to be spread over nineteen gardens out of twenty, and our great hope, the Chrysanthemum, which thousands now cultivate, has been all but destroyed. We are writing on the 25th, with the glass down to freezing point, and it is the fourth day of a frost belonging to Christmas. The thousands of flower buds among our Chrysanthemums hang down as if weeping for an untimely and damaging


visitation, and whether they will escape without suffering considerably is very doubtful. In no year have there been so many enthusiastic growers, and an untoward season is to be sincerely regretted. We may say we know hundreds who took off their cuttings, or for the first time of attempting their culture, were set up with a few by some good Samaritan, like our friend Samuel Broom—who well knows that by creating a taste for floriculture, he heals many a moral wound—and have patiently and assiduously watched their progress, and attended to their wants all the year; and we should grieve to see them deprived of the pleasure they would derive from success. But a partial damage they must sustain, and those who have no means of protection will certainly not have so fine a bloom as they would have had without a frost. It is too late to apply a palliative, much less a remedy; but by standing them under a north wall, so that they may escape the sudden thaws which take place in the sun, they will keep off some of the mischief; for the rapid change that takes place in the sun destroys the texture of the flowers. We cannot help fancying the *Chrysanthemums* are later than usual, although we are assured by some of the old growers that it is not so. We attended a meeting of the Central Horticultural Society on the 18th, at their rooms in Salisbury Square, and Mr. Peck of Kensington Gardens produced blooms of eight or ten pompons, and they were considered early by the majority. This Central Society is for the protection of amateurs and gentlemen's gardeners against fraudulent dealers in novelties, and is rapidly enrolling the sufferers by the purchase of new things with false characters. Subjects are shown for approval, and the whole Society is constituted a Board of Judges, who decide upon the merits of plants and flowers, fruit and vegetables, by ballot. The Society works well, and will be found of great service to gentlemen's gardeners and amateurs, as the annual report will contain a list of the novelties that may be depended on; for a ballot among a considerable number of buyers must be a means of ensuring a sound judgment. How the general *Chrysanthemum* shows

will come off is at present doubtful; but there will be many fine seedlings exhibited, because those who raise seedlings will naturally protect them, and some of them will be shown at the Central Society. Those who have, like ourselves, grown some hundred Chrysanthemums in pots, will be able to set their gardens to rights after the frost cut everything down; for to clear everything off, and sink pots in sufficient number to dress up the beds and borders, made a healthy-looking change; but we are by no means certain that we shall have a bloom of Chrysanthemum good enough to compensate us for even that little trouble. We are growing all the spring-flowering bulbs in pots, and plunged them out-of-doors to keep them back; but they are destined for the place now occupied with pompons, which will, if the weather should continue bad, soon look as shabby as a mass of flowers did the morning after the first frost.



History of the Petunia.

[BY AN OLD FLORIST, PHILADELPHIA.]

 IN taking a cursory view of my flower-garden, it seems to me that its beauties are all of very recent date. Phlox Drummondii, Manellia, Portulaca, Nierembergia, Thunbergia, Imperial Pinks, Verbena, and the Petunia, have all been brought out in your own day.

The Petunia with me has always been a blooming favourite, always shining from May to December. Its delightful and peculiar clove scent in the evening, its great variety of colour, its easy propagation, its adaptability for all situations, rough or fine, high or low, rich or poor—all endear it to me. On this continent it is the flower of the day. Now for a small page of its history.

The *Nicotiana nyctaginiflora* (White Petunia) was

sent to Europe from South America, in or about 1822. The late Robert Sweet, the best cultivator of the day, wrote a description of the plant and its culture at his residence in Chelsea, London, where he expatiated on his plant of seven feet growth trained on a wall, and bloomed eight months in the year. Mr. Otto, of Berlin, wrote a history of its culture in 1827. It formed a prominent feature at all flower shows; every visitor admired the lady in white. Botanists took hold of it, and changed it from *Tobacco* to *Petunia*, which name it has retained and will retain till flowers shall bloom no more. But the white, so tame and cold in colour, did not suit. Mr. Tweedie, of South America, sent seeds of a plant to Dr. Neill, the veteran horticulturist of Edinburgh, in or about 1830, which produced flowers the following year of a brilliant purple colour, and was called *Nierembergia phœnicœa*, but botanized to *Petunia phœnicia*. This subject with the White *Petunia* laid the foundation on which the whole diversity of structures of the *Petunia* has grown. I do not think I can decide who was the first hybridizer to operate upon these two subjects, whether it was first done in the city of our adoption, or in the flower-gardens of Old England. I believe the first English hybrid was made by Mr. Willimore in 1833 or 1834, and the American hybrid appeared in the same year, and produced varieties of a lilac colour, which was a boon to the poor Philadelphia florist, and made a very valuable market plant. From that period until now the progress has been onward in every variety of colour. The Germans having impregnated it with the green edge to the flower. This very peculiar feature appears to be however at the cost of the foliage; for these green-edged varieties have always a very pale foliage, even to a sickly hue. They have not much added to the beauty of the plant. Striped flowers have been introduced for several years, but they are very inconstant in character, shooting back to self, and you may frequently see striped flowers, white flowers, and purple flowers on the same plant. Of late years we have a double white variety sort called *Imperialis*. A double *Petunia* was till recently a new idea.

Now, in 1859, there are many double kinds and of several colours; but I must say that there are more names than varieties. I have just returned from a visit to a bed of these new sorts in one of our fashionable nurseries, and from about twelve names I cannot distinguish six distinct kinds; but such flowers, nearly as large as dahlias. I measured three double sorts, each with flowers three inches in diameter. This extra size, however, detracts from the profusion, and for actual show (and we all go for it) the single flowers and the small double sorts are to be preferred.

I cannot forget to relate a hint that I got a few years since from a bright-eyed Philadelphia seedsman how to show off for twenty cents. "Just go to my store and buy two papers of our best *Petunia* seeds. Sow each paper in separate five or ten-foot beds. When they bloom pull all the white blossoms from the one, and all the purple blossoms from the other, and thus you will have two elegant flowering beds for one season."

AMERICAN MONTHLY.



Fortune's Yellow Camellia.


[From the *Gardeners' Chronicle*.]

IT was only the other day that I had an opportunity of examining at Kew the famous Yellow Camellia, mentioned by Fortune in his "Journey to the Tea Countries of China," and noticed in your Paper for 1852, p. 259, and may be allowed to say here a few words respecting its systematic position, as that seems to involve a question of practical tendency. The Yellow Camellia does not constitute a new species, as has been supposed, nor is it to be regarded as a variety of *Camellia japonica*. It is merely a form of *C. Sasanqua* (which I hold to be identical with *C. oleifera*, of Abel). *C. japonica* flowers towards the spring, and has quite glabrous leaf-buds, petioles, leaves, and ovaries; whilst

C. Sasanqua flowers in the autumn and has pubescent leaf-buds, petioles, and veins of the leaves, and a woolly ovary. The characters of the latter fully agree with Fortune's Yellow Camellia; and it may therefore be safely referred to as a Warratah or Anemone-flowered variety, the stamens of which are transformed into short, spathulate petals of a primrose colour. Hitherto the Warratah state was only known to occur in *C. japonica*, and the yellow colour is certainly quite a new feature in this genus, deserving the greatest attention of horticulturists. That *C. Sasanqua* has a tendency to assume a yellow tinge is evident even from the single flowering state, as will be seen from the excellent figure in the Botanical Register, t. 942, where the outer series of stamens displays the primrose colour peculiar to the Yellow Camellia. I may add that the plate quoted represents the form nearest approaching the plant under consideration; the leaves of the Yellow Camellia always being more acuminate than those of the ordinary form of *C. Sasanqua* found in the gardens, and the styles are generally (but not always) entirely free.

The Yellow Camellia has generally a sickly appearance. This I think may, in a great measure, be accounted for by its being almost invariably grafted upon *C. japonica*. If that process is resorted to at all, *C. Sasanqua* should be selected. There is another Camelliaceous plant that is in most gardens in rather a precarious state; I mean *Thea maliflora*, fl. pleno (= *Camellia maliflora*, or Palmer's Double *Sasanqua*), either grafted upon *Camellia Sasanqua* or *C. japonica*, with which it can claim only a distant relationship. Its normal type I have ascertained to be the *Camellia euryoides* of the gardens (not of Lindley!) figured in the Botanical Magazine, t. 5044, a fast-growing, generally healthy-looking plant, upon which this so-called Double *Sasanqua* would no doubt thrive better than upon the species upon which it has hitherto been grafted with such indifferent results.

Strawberries.

 WE extract the following from Messrs. Vilmorin & Co.'s new catalogue, being the selection made by Madame Vilmorin of the best sorts grown in Paris:—

“When the soil is not too cold and damp in winter, Strawberries should be planted in the autumn in preference to the spring, because by doing so they bear a better crop the following year. The species or varieties marked * are the best adapted for forcing in either greenhouses or frames. We advise those who receive their Strawberry plants a little withered, which cannot always be avoided, to restore them by plunging them into water for some hours before planting them. Anyhow they should be well watered after planting, let the time be when it may, and shaded for a week at least, if the weather be warm and dry, in order to facilitate their taking root again. When the Strawberry plants arrive very much flagged, in consequence of a long journey, it is advisable to prick them out under a cold frame, which must be carefully shaded during the day, and regularly aired; when the plants have well taken, they may be removed with balls of earth round their roots and planted out, or still better left alone till the spring, when success will be more certain. In fact, this last mode of cultivation is the best for all Strawberry beds made rather late in the autumn, particularly if the soil is cold and damp in the winter. Those who have not frames may prick out their Strawberries in the open ground, provided the place is perfectly well sheltered from the north wind, and the plants are placed about eight inches apart; it is then easy to protect them from severe cold, and especially snow, by straw mats or straw alone. In light soils the frequent frosts of the early spring are apt to draw out the plants and expose their roots to the air; this inconvenience may be partially prevented by treading down the earth, or by rolling it, in order to make it solid before planting, and doing so

every time that frosts raise the roots and loosen them ; but care must be taken that the earth is dry enough not to stick to the feet.

AJAX (Nicholson).—Fruit very large, round, deep red, flesh red streaked with white, firm, sweet, high flavoured, a good early Strawberry.

ADMIRAL DUNDAS (Myatt's).—Fruit very large, of irregular form, of a scarlet red colour, flesh white, edged with orange, sweet, high flavoured, perfumed ; a late sort which appears not to bear freely till it has been planted two years.

BARNES'S LARGE WHITE.—Fruit large, round, amber white, tolerably perfumed, prolific, very late, and remarkable for the colour of its fruit.

***BELLE BORDELAISE.**—Obtained from the seed of the old Hautbois (*musqué*), fertilised by the Alpine (*quatre saisons*) ; the fruit has a delicious perfume, and the plant is a good bearer. This variety is perfectly well suited for forcing, as well as the open ground ; sometimes produces a second crop in the autumn.

***BELLE DE PARIS.**—Fruit very large, of a conical form, bright red colour, flesh rosy white, very firm, sweet and high flavoured, comes to maturity the second season ; a strong and fertile variety, easily forced.

***BLACK PRINCE (Cuthill).**—The value of this variety is its precocity, fertility, the length of time it continues to bear, and the deep colour of its fruit, which is tolerably good ; the flesh is juicy, rather sour, pretty good, but in some light dry soils it forms its fruit badly. It is well calculated for forcing.

BRITISH QUEEN (Myatt's).—Fruit very large, of an irregular oblong, light vermilion red, flesh solid, tolerably firm, white or a rosy white, sweet, watery, perfumed, delicious ; late. The variety, whose fruit is one of the very finest, and perhaps the best of the large-fruited sorts, has the fault of being delicate in the ground ; it prefers a virgin sandy soil.

CAROLINA SUPERBA (Kitley).—An excellent Strawberry, large, of a vermilion red colour, seeds prominent, flesh white, firm, and of a delicious perfume, something like the British Queen, but stronger and more hardy.

CRYSTAL PALACE (Nicholson).—Enormous fruit of a beautiful elongated form, flattened, bright red colour, flesh rosy, firm, juicy, and of a rich flavour; a very late and very prolific variety.

DEPTFORD PINE (Myatt's).—Fruit large, firm, flesh white, rose in the centre, rather sweet, high flavoured, pretty good; very early.

***RED MEUDONNAISE ALPINE.**—A beautiful variety with large fluted leaves; fruit more regular and generally larger than that of the common Alpine, producing less at a time, but for a longer period.

WHITE ALPINE (or *quatre saisons*).—Perhaps rather sweeter and more perfumed than the red.

BUSH ALPINES (or *quatre saisons—de Gaillon*), with both red and white fruit, being without runners, are best suited for cultivating as border edging; they bear abundantly at the end of autumn.

DUC DE MALAKOFF (Gloede).—A very vigorous and fertile plant, fruit middle early, of the largest size, irregular form, very deep red, seeds prominent, flesh red streaked with pale red; of a rich vinous flavour.

ELEANOR (Myatt's).—One of the most beautiful and largest fruits, of elongated form, and a bright red colour, flesh rather firm, slightly acid and high flavoured; a fertile variety, and one of the latest.

ELIZA (Myatt's).—Fruit middle-sized, conical, light vermilion red, juicy, high flavoured, very perfumed and peculiar; ripens early. This sort prefers fresh land; it is not prolific, but bears fruit during a month or six weeks. Its fruit is one of the best for preserving or for making into sweetmeats.

EMPRESS EUGENIE (Knevet).—Extremely large fruit, many of them measuring 6 inches in circumference; the flesh is of a beautiful red, very juicy, and its perfume superior to most large Strawberries.

EXCELLENTE (Lorio).—Fruit large, generally oval, deep red, flesh white streaked with red; flavour of the wood-strawberry; early.

EXHIBITION (Nicholson).—Very fine fruit, of an odd form, vermilion red colour, seeds prominent, flesh

whitish, yellow, sweet and perfumed. Remarkable for the length of time it continues to bear.

GOLIATH (Kitley).—Fruit middling size, conical, vermilion red; flesh firm, rosy white, high flavoured, very perfumed, excellent; one of the best sorts for preserving or making into sweetmeats; prolific and hardy; ripens late.

HOVEY'S SEEDLING.—Fine large fruit, of a very large rounded form, scarlet red colour, flesh rosy, of a good quality, though slightly pasty. This sort can bear drought better than most.

IMPÉRATRICE EUGÉNIE (Gauthier).—Fruit of a fine conical form, bright rose coloured, white prominent seeds, flesh rosy white, sweet and perfumed. Appears to be strong and prolific.

***KEENS' SEEDLING.**—Fruit of middling size, bright red, flesh firm, sweet, juicy, high flavoured, of good quality; early, hardy, and prolific; well suited for forcing, but after the first gathering, the remainder is too small.

LA CHÂLONNAISE (Dr. Nicaise).—Large vermilion red coloured fruit, flesh white, delicate, dissolving, of a delicious flavour; middle season.

LA CONSTANCE (De Jonghe).—Large fruit of a fine conical form, bright red colour, shiny looking, seeds prominent, flesh white, very firm, of a sweet and perfumed flavour; ripens late. Strong dwarf plant and very prolific. A very interesting variety, which has hitherto succeeded well in different situations and soils.



Acquaintance with Greenfly.

[Continued from page 281.]

REAUMUR designates the race of Aphides as the very corn sown for the use of their more powerful insect brethren; but as animate creatures, as well as gregarious greenleaf grazers, they have

been considered with more propriety, as the oves and the boves, the flocks and the herds of those which seem permitted to hold them in possession. Foremost among the aphidophagi, or feeders upon aphides, we must rank the ladybird. Innocent as she looks, that misnamed *Vache à Dieu*, instead of grazing innocently on the fruits of the earth, loves nothing better than to stuff under her scarlet mantle carcase after carcase of aphis lamb or mutton. Even before she puts on her scarlet, while yet in her own tender youth, or in other words, while she is yet only a six-legged grub, she fairly fattens on aphides. Wherever these abound, whether in hop-ground, in bean-field, or in rosary, there the ladybirds are gathered together, and in all such places they do the cultivator more good by their united appetites than he can do for himself by all his precautions against "the fly." Numerous are the winged tribes called Aphidivorous, or aphis-eating flies, and among these is the beautiful gold-eyed, lace-winged fly, which, while yet in its crawling minority, roams through its appropriated leafy fold, making tremendous use of its crooked and perforated tusks, first to slaughter and then to suck in the sweet juices of its victims at the rate of two in a minute. Of less ferocious aspect, but not a whit less insatiate is the green, or parti-coloured grub of a bee-like fly, called a syrphus, of which many varieties are common in gardens, darting from flower to flower, or hovering hawk-like over them. Applied closely to a leaf, or stalk, by their hinder extremities, which are broad and flattish, the grubs of these syrphi may, in June, be noticed by dozens, on the search for aphis prey, by which they are usually surrounded.

The above are the most rapacious of those comparatively bulky devourers, that, to the extensive benefit of vegetation and to man, appropriate aphis flocks by wholesale; but the aphis individual, atom as he is, is by no means so insignificant as to escape individual attack. Even the aphis is great enough to have a parasite. One, a small black ichneuman fly, pierces the little green body of the unconscious sap-sucker, and

deposits therein a tiny egg, from which springs a tiny worm, that feasts and grows to maturity within its living receptacle.

"When the egg is deposited in the body of the aphis," says Kirby, "the body of the victim swells and becomes smooth, though full of life. Those thus pricked separate themselves from their companions, and take their station on the underside of the leaf. After some days the grub hatched from the enclosed egg pierces the body of the aphis, and attaches the margin of the orifice to the leaf by silken threads. Upon this the aphis dies, becomes white, and resembles a brilliant bead or pearl." Every aphis-covered Rose-leaf will furnish instances of what is here described.

But enough of aphis enemies; now for the friends. We have hitherto seen our flocks of the leaf appropriated as sheep for the slaughter, but those to whom this fact, however new, will appear nothing strange, may smile incredulously on being told that as "Milch kine" they are sometimes kept, tended, and even reared by insect proprietors for the sake of the sweet milk—the honeydew—which they afford. * * * This patriarchal practice is exercised by various tribes of economic ants, though the yellow ant—*Formica Flava*, has been termed the greatest cowkeeper of them all. * * * Ants and aphides are held together by some bond of union. They are continually seen in company; and a little further scrutiny presently discovers that the ants are followers of the aphides for what they can get out of them. Last autumn, the stalks of an elder shrub in our garden were absolutely blackened at the joints by elder aphides; among these were continually to be seen a multitude of brown ants, demanding and receiving their supplies of honey-dew as emitted by the former.

There is yet another peculiarity which distinguishes the aphis from perhaps every other creature in the animal world, a physical enigma about which the divers into nature's secrets long puzzled their heads in vain, until at last a clever, patient Frenchman, M. Trembly, hit upon what is considered its solution:—

"Now, when you see in spring, or early summer, a group of aphides, a group of leaves covered with them, or even a group of trees which they have made their own, it is certain (at least we can answer for the fact on good authority) that in all the multitude in which you cast your eye, you will be looking on none but aphides (whether winged or wingless) of the feminine gender. Where, then, are the lords of these numerous ladies? is a question you very naturally ask. Why, they are not in existence, and never have been. The ladies may have had fathers, they have children (to be seen like chickens busy with their bills around them), but with perfect truth they neither have, nor ever have had, husbands."



Opinions on the New Grapes.

THE following opinions on the New Grapes have been given from time to time in the *Gardener's Chronicle*.

Golden Hamburgh.—Mr. Cramb of Tortworth Court finds the Golden Hamburgh to be "quite equal to all that has been said in its favour. It is a cross," he says, "between the Black Hamburgh and Stillway Sweetwater. It possesses a strong, vigorous habit; the leaves have less substance than those of the Black Hamburgh, and are more transparent in colour. The length of a medium-sized bunch averages from nine to ten inches, the width of the shoulders a little less; and it should weigh about two pounds. The berries are round, and, when well grown, measure from $3\frac{3}{8}$ to $3\frac{1}{4}$ inches in circumference.

"With the exception of (the best) *Muscats*, we have no grape in which are combined so many good qualities, the flavour being all that the most fastidious could desire—the flesh firm, juicy, and saccharine.

"It submits to early forcing in pots, but requires a temperature from 68° to 70° to set the berries thickly, and a rather dry atmosphere."

Mr. Cramb doubts whether, owing to its delicacy and thinness of skin, it will keep well in autumn and winter (p. 672). Mr. Thomson, Dalkeith Park, found bunches of this grape about one pound in weight; and thinks it not superior to the *Bowood Muscat* (p. 693). Mr. Glendinning had three bunches (on a graft); the one reported on was small; the berries average size; the colour a deep amber, and worthy of the name of Golden. The berries charged with the most luscious sugary juice. He had tasted nothing that approached it. The grape will eventually take a high position, and be found in all collections.—(p. 710.)

Bowood Muscat.—Mr. Thomson, Dalkeith Park, reports that, “judging from my present experience, the best new grape that has come before the public for the last quarter of a century is the *Bowood Muscat*, raised by Mr. Spencer. The bunches on an average weighed two pounds. The berries were very fine, and set as freely as Hamburgs, and had not a shanked berry amongst them. The *Bowood Muscat* ripens at least fourteen days earlier than the *Common Muscat*, sets much better, and has every good quality belonging to the *Muscat* family, such as being a good keeper, and having the same brisk flavour. I believe it is destined to displace both the *Common* and the *Cannon Hall Muscats*, which is saying a good deal in its favour. It has all their good qualities and none of their bad ones.”—p. 693.

With this opinion Mr. Glendinning and Mr. Cramb substantially concur. Mr. Henry Manton, Sleaford, reports that the *Bowood Muscat* has the property of setting well in a low temperature.—p. 726.

As a demurrer to the precipitate condemnation of the *Cannon Hall Muscat*, Mr. J. Edlington, Winch House, Seacombe, sends a bunch of them to the *Gardener's Chronicle*, “a foot long, perfectly thinned and regular, but not ripe.” It was grown in a cool vinery. To succeed with this sort, the vine should be planted inside the house.—p. 725.

Buckland Sweetwater.—“I consider it a decided improvement on the old *Sweetwater*, and I think it a variety which should be added to every collection of good grapes.”—JAMES DREWETT, *Denbigh*, p. 672.

Nottingham Chrysanthemum Society.

HOW are your Chrysanthemums looking?" was a question asked one of another very frequently during the past few weeks; indeed, all we florists are anticipating the grand show of the season, the finest ever seen in the Midland counties, will take place this month in our large hall at the Mechanics' Institute. The prizes have been arranged so as to allow of every one who exhibits, with a little exertion, to gain one or more; indeed, when I say that they are upwards of eighty in number, every one will at once see that it is not an exclusive schedule, made as too many are, and have been, for the aggrandizement of certain individuals. The Mayor, the ex-Mayor, the Rev. S. R. Hole, and other gentlemen have kindly headed the list of patrons, while the committee is formed of about twenty enthusiasts, who I am sure are not backward at making an exertion. The judges are to be Mr. Broome and Mr. Bird. The Chrysanthemums are looking remarkably well; indeed, a week or so ago, we visited one collection alone sufficient to fill the room. Such plants, too, will astonish everybody, and, if we mistake not, stand at the top of the list. Others, too, we have seen which will, we think, quite astonish many persons who do not know to what use, as a decorative and exhibition plant, the Chrysanthemum may be put. We hope to see many of our friends at Nottingham, and we are sure that they will by patronizing us, not only conduce to their own profit by the sight of so many beautiful specimens, but also tend to encourage the continuance of a similar exhibition in future years. We hope, therefore, that our friends will not fail to pay us a visit. Subscriptions will be received by any member of the committee; and a new feature will be exercised, namely, that of giving tickets of admission to the amount of the subscription. We would, therefore, say—

"Remember! remember!—*not* the Fifth of November, *but the Fifteenth and Sixteenth!*"

Our Miscellany.

HINTS ABOUT FORCING FLOWERS.—Almost everything capable of being forced would suffer, and most likely fail altogether, if suddenly removed from cold to extreme heat, and therefore one prevailing rule is to put everything through a gradual increase of temperature. The effect of sudden change from cold to heat in flowers is a failure of the bloom. Put a hundred moss-roses into the forcing-house from the open ground, and scarcely one will give a good bloom; put a dozen into the greenhouse at the coolest end, in a fortnight remove them to the warmest end; in a fortnight more let the heat be increased ten degrees, and then they may go into the forcing-house, with the certainty of flowering well. But we must make an exception to a forcing-house for roses alone, because they may be at first without heat, and the temperature of the forcing-house gradually increased until regularly set on. When we say they must not be removed from the open ground to the forcing-house, we are presuming that the forcing-house is in full work with other things. In many family establishments the stove is the only forcing-house, and for the sake of its own plants it is of necessity at a temperature of 60° to 65° at least by day, and somewhat lower at night. In some establishments, where pinery, vinery, peach-houses and stove are always going, the whole of them are made available for forcing something.

GRAPES AND PLANTS DO NOT AGREE.—VINES.—In all hothouses, stoves, greenhouses, and conservatories, where there happen to be Vines, the Grapes must be subservient to the principal objects of the house; but although much can be done towards assisting them, it is impossible they can be so fine, or be calculated upon at a given season so well, with plants as without them. In fact, unless everything gives place to the necessary management of the Vine, the fruit will not be all it ought to be. With regard to the

pruning, wherever there are plants to protect, there must be but one rod up the rafter; but as to managing the rod it is the same as a rod on the wall. The Vine must begin forcing at 50° , and be gradually got up to 60° , till in full leaf, gradually increased to 70° while blowing and ripening; therefore the Vine cannot be said to have justice if there be any plants that will prevent this. Nevertheless the Vine, when pruned well, is conformable to almost any regular temperature. It has been said that with six houses ripe grapes may be had all the year; we believe it could be done with a less number.

CUT FLOWERS.—In our opinion there can hardly be a more elegant embellishment to the drawing-room or the parlour, than a handsome nosegay or a tasty bouquet. There are thousands now among the middle classes who have their regular supply of flowers for that purpose; and the fashion cannot be too much encouraged. Those who have choice small bouquets, should place the little vase or glass in the middle of a plate of water, and whenever they leave the room, and especially at night, they should cover them with a glass shade, or inverted jar, or anything air-tight, with its edges in the water. This prevents evaporation of the juices of the flowers, and they last for several days longer. A glass shade is the best, because it does not look unsightly; but, of course, when company are in the room, and the perfume, which is the great charm attached to flowers, should be enjoyed, the glass must be removed. It is of use to those who have small expensive bouquets, but ordinary flowers are too cheap to be worth the trouble. Much may be done towards prolonging the beauty of ordinary nosegays, by taking them out of the water every morning, cutting the stems a trifle shorter, removing the over-blown flowers, and giving them fresh water; we should like to see every house in town have its nosegay, as one of the proofs of the taste of its inhabitants.—*G. Glenny.*

THE BENEFIT OF CHEAP LITERATURE.—“What is wanted by a hundred thousand working gardeners, and the half million of amateurs whose gardens are their

hobby, is the garden matter of a garden newspaper; which only occupies a fourth of the space, without being obliged to buy the three-fourths that are filled with news which is useless, and politics which are offensive. They want a paper half the size at half the price; and this they ought to have and must have. The whole body may then be served, because the poorest gardener may take it alone, and the more wealthy will have it in addition to the newspapers they read. But it must be conducted by very different persons to those that fill the present garden newspapers."—*F. M. The Liverpool Athenæum.*

CURIOUS ADVICE TO ROSE GROWERS.—The following actually appears in one of our garden publications:—" *Rose Garden.*—Planting the hardiest varieties may still be continued; in fact, many growers consider the early part of the month as good as any part of the year; *but after that time, unless the weather is uncommonly mild, planting should be deferred until spring*: and if beds are now prepared, and kept during winter well turned about and pulverized, they will then be in the best possible condition for planting." There is not a single day between this and the spring but which may be used for planting roses if the weather be open, and if this advice were attended to it would be next to madness. One fact is quite clear to everybody who has had practice: from the fall of the leaf, every day that planting is delayed is a loss, but an open day in November is better than December, December is better than January, January better than February; in fact, although they will do until the buds swell, the sooner they are planted the better; whoever delays till spring risks the deterioration of the bloom, and those who recommend it are either ignorant or mean mischief. The above rubbish was written for October, when many were actually in flower.—*G. Glenny.*

PTERIS ARGYREA.—This new Fern proved to be a beautiful object of an entirely distinct character, being the first well-marked variegated Fern introduced into cultivation. The Floral Committee of the Horticultural Society unanimously awarded it a first-class certificate

as being an entirely novel, ornamental plant. It has been introduced from Central India by the Messrs. Veitch. Habit vigorous; fronds five feet long, including the stout stripe, which is scaly below, and occupies about half of the entire length; ovate in outline; about two and a half feet wide at the base, pedately bipinnatifid. The two lower pairs of pinnæ usually—sometimes the third also—having a posterior basal branch; segments of the pinnæ obtusely linear, subfalcate, one and a quarter inch long, somewhat wavy; spinulose on the upper rachis, the terminal one cordate. The peculiar beauty of the Fern is owing to the base of each segment, for a quarter of an inch or more of its length, being of a silver grey colour, so as to produce a broad silvery stripe about three-quarters of an inch in breadth down the centre of each of the pinnæ and of their branches. It is a most valuable addition to our Garden Ferns.—*Florist*.

CHRYSANTHEMUMS.

LARGE-FLOWERED.—*Ascania*, golden yellow; large and double. *Aimée Ferrière*, silvery white, tipped with rose pink. *Captain Thoubais*, dark cinnamon, with bright red disc. *Elizabeth*, pure white, incurved, fine. *Gloire Toulouse*, snowy white, imbricated; good form. *Lothario*, light ruby red, incurved; good. *Louis Vilmorin*, carmine red. *Madame Lagarique*, amaranth rose; very double and imbricated. *Madame Leo*, ivory white; very high centre; extra fine. *Monsieur Deschamps*, canary yellow; flowers large. *Progne*, bright crimson carmine; a most brilliant flower. *Stellaris globosa*, carmine crimson and white, incurved; a fine show flower.

POMPONES.—*Aureole*, crimson scarlet and orange; fine. *Crocelle*, cinnamon maroon; the points of the petals tipped with gold; very double. *Filletto*, pure white, changing to rose round the border; very double and imbricated. *François the First*, reddish orange; very full and fine. *Général Canrobert*, pure yellow; free; good for show. *Iphegenie*, lilac rose; the form of a *Ranunculus*; superb. *Josephine Latrouche*, pure white, imbricated; very good. *Mademoiselle Elize*

Cassaigne, rose tipped with yellow; very double and imbricated. *Marmouset*, cinnamon carmine tipped with gold; very double and imbricated. *Mr. Lebois*, striped carmine rose, tipped with gold; a fine round flower well imbricated. *Reine des Panaches*, white, beautifully striped with rosy lilac; very double, imbricated, and unique. *Thetis*, clear yellow; very double and well formed.

Calendar of Operations.

A ZALEAS.—Train and tie any plants that require it. Give abundance of air, night and day, while the weather is mild, to those that are wanted to bloom in late spring and early summer. Keep the young plants in the warmest part of the house. Use the syringe freely amongst those to flower in winter and early spring, and maintain a moist temperature of from fifty to fifty-five degrees by night, and sixty to seventy degrees by day. See that none suffer for want of water.—E. CLEETON, *gardener to E. Holland, Esq., M.P., Dumbleton.*

CHRYSANTHEMUMS.—I know no florists' flower that has all at once taken such a rapid step as the Chrysanthemum. Around London, we are to have nine shows, in November, and a great number in the provinces; in fact, I believe that, next year, every lover of floriculture will grow Chrysanthemums, consequently they will be in great demand, and I would recommend those who now grow them to make sure of a good stock of suckers of each variety, before the frost sets in. Many of the best sorts are now throwing up their next year's shoots. They should be carefully cut off with a strong knife, and to make sure of plants, if a bit of root can be got with each, all the better. Still, cuttings are preferable, if convenient to strike, as the plants have a better constitution, and are not so liable to throw up suckers. Six or seven in a forty-eight pot, placed round the edge, will keep in a close frame, or sheltered place, through the winter, and may be potted off in February. Loam and sand is the best compost, and they should have plenty of drainage, moderate watering, and plenty of air on fine days. Having had so little rain, this summer, I fancy we shall have a great quantity, with snow and frost, during the winter, therefore be prepared for it, and secure all the plants you can, before it comes. When the border varieties have done blooming, cut them down as soon as possible, and protect them round the roots with some temporary covering, such as ashes, sawdust, or dead leaves

that are a little decayed. Flowers for exhibition should be carefully looked after, and wet or damp should not be allowed to lie too long on the petals, or they will be spoiled. Those in the open borders should have a temporary covering of unbleached calico. Dip it in boiled linseed oil, mixed with bullock's blood, and wring it out afterwards; it keeps out the wet better, and will soon dry, if stretched tight. Remove all curly petals, and ease, with a sharp-pointed stick or bone, the hard-eyed gummy petals that stick close together in the centre, or the back petals will fall before the centre expand. If the bloom comes too early for the show, cut it off, before it is fully expanded, and put it into a small bottle, or some other vessel filled with water, but not to touch the petals. Place it on a board, covered with damp flannel, and keep out the air by covering with a small striking glass. By this means, they will keep three weeks, and be better and fresher when taken out than when put in. If too much moisture hangs on the glass, wipe it off, or the bloom will rot. Watch them daily, and don't put them on the exhibition table till the last hour, or they will begin to drop the petals.—*Pompones*.—No time should now be lost in taking suckers or cuttings, for next year's specimen plants, putting six or seven in a five-inch pot, or a single plant in a small sixty, to be kept in a cold frame, through the winter, otherwise it is impossible to have monster plants, in eight-inch pots, four feet across, with two thousand blooms, for exhibition, this time next year.—S. BROOME, *Temple*.

CINERARIAS.—See to regulating the leaves and shoots as they grow. A compact head of bloom depends greatly upon the treatment the plants receive before they are in flower. If allowed to assume their natural habit of growth, they get tall, but if constantly pegged down, a great improvement may be observed. Keep the plants clear from decayed foliage and greenfly. They will be making rapid growth now, and should receive an abundance of air every favourable opportunity. See also that the plants do not suffer for want of water. Re-pot any that may have filled their pots with roots.

EPACRISSES.—These plants should still be furnished with plenty of air, day and night, when the weather is mild, to allow the buds plenty of time to get full and prominent. The earliest, if required, may be forwarded by introducing them into a warmer house or forcing structure. Some care is now required in the application of water. I always prefer, at this season, giving it in the morning, that the house may get dry by night.—EDWARD CLEETON, *gardener to E. Holland, Esq., M.P., Dumbleton*.

DAHLIAS.—See that your roots are carefully stowed away free from frost and damp.

FUCHSIAS.—The plants will now be in their winter-quarters, and will require little attention except when intended to be exhibited at the early shows; these should be kept in a gentle temperature. Cuttings may be put in if they can be procured.

PHLOXES, if not already parted, should be separated without

delay, and all the parts planted where they are to remain, or, if very choice, potted for the convenience of protection and propagation all the winter.—G. GLENNY.

PELARGONIUMS.—The present is a very quiet month with these plants, and when watering, great care is necessary to prevent wetting the foliage, as that, with keeping the house closed, and the dull weather we generally have in November, is the cause of the leaves fogging off. When this is the case, a little artificial heat, in the daytime, will be beneficial, now and then giving air, at the same time. By this means also the house will be kept dry. In giving air, however, the temperature outside must be considered. If it is low, take care to avoid cold draughts. The temperature inside should range from forty to forty-five degrees. Keep the plants clear from fogged and decayed leaves, weeds, and greenfly. Re-pot any plants that are required to bloom early into their blooming pots. In potting use a moderate supply of drainage. Plants that are irregular,—it is well known that some shoots will be inclined to grow stronger than others,—may have their tallest shoots pinched out at the crown. This will strengthen the other shoots, and be the means of ensuring a regular head of bloom. Go over the plants, and give them the first tying out. A piece of twisted matting, fastened under the rim of the pot, to which to tie the shoots, will be all that is necessary at the first going over.

PANSIES.—Take off the lights at all favourable opportunities. Look out for snails and slugs. Peg those down that remain in beds to prevent their being broken with the wind.

TULIPS.—Planting should be finished this month. The bed should range east and west, in a situation free from wet at the bottom; or if this exist, it must be removed by deep draining. The soil must be renewed annually, to the depth of about half a spade graft, and nothing is better than sandy turf, cut about three inches thick. Make the bed exactly level with the top of the edging, and plant on this surface, covering about three inches thick, near the sides, and five in the middle. Tulips are most effective when in flower, if planted in the herring-bone fashion, as described a few years ago, in the *Midland Florist*.—T. ALLESTREE, *Draycott, near Derby*.

ROSES.—Planting should be proceeded with at once. Choose a dry day, and, above all things, take care that the soil is well drained. A standard Rose properly planted, in a suitable soil, will last for years. I have just planted two large beds,—one *Souvenir de Malmaison* and *Jules Margottin*, the other *Gloire de Dijon* and *General Jacqueminot*,—the soil all made, two barrowsful of stiff loam and one of well-rotted cow-dung. The result will, I trust, be a splendid bloom next season.—*Roses in Pots* should be, in their winter-quarters, protected from heavy rains; and if wanted to bloom very early, a few may be taken from the cold pit to the greenhouse. The best for winter blooming are the *Teas* and *Chinas*. Give air at all times to young stock, and fumigate on the first appearance of greenfly.



DECEMBER.

Tulips.


SOME time since, Mr. Editor, you forwarded to me, for the purpose of soliciting my advice, a few queries respecting Tulips. I think it unnecessary to give these questions seriatim, and therefore submit the following remarks. One of the questions is to this effect: How am I to know to what class a breeder belongs? The Tulip is one of those flowers whose beauty for some time lies latent; that is, we see but few of its beauties until we have had the flower in our possession, or rather till it breaks. The petals of a breeder Tulip are always of one uniform colour—purple-red or dull brown, or some other shade. The base, however, is either white or yellow, and it is by the colour of this base that we decide as to which class the flower belongs; therefore, if the bloom is of a red colour, with a white base, it will be a rose; if of a brown colour, with a yellow base, it will prove itself a bizarre; while, if it be of a purple tinge, with a white base, it will be a bybloemen. Another query put is this: Suppose that a breeder was to remain in the breeder state for several years, during which time the bulb had made several offsets, could these offsets be depended upon to bring the same flowers as the parent bulb whenever they broke? I would reply, that it is my opinion that, although these flowers may in many respects resemble each other, still it is by no means certain that each will possess all the good points of the parent; indeed, every grower of the Tulip knows that of many flowers there are inferior and extra fine strains. This has led in a great measure to the many discussions as to whether or no two varieties are of one sort; and

in buying Tulips our querist should take care to secure fine strains. Correct marking should, in my opinion, always be deemed indispensable; indeed, it is a very great point in the property of a good flower. Dr. Hardy, writing on the subject, says, "Purity, marking, and form are the chief properties; size, substance of petal, and all other points being subordinate to these three. Fine marking, I doubt not, will always be held in high estimation by the genuine florist. It is this property alone over which he is enabled to exert any immediate control, and the only one on which the careful and intelligent cultivator has to depend for maintaining his superiority over the idle and the ignorant. So far as form and purity are concerned, all are on an equality; for whether Tulips are by nature perfect or imperfect in form, or whether they are pure or impure in colour, their character in these respects cannot be altered by any system of management we may adopt; but it is not so with marking, which, except in varieties naturally defective in this property, will always reward the diligent cultivator with success proportioned to the amount of skill employed to produce it." Such is Dr. Hardy's opinion, and some excellent remarks were made by the Doctor in the first volume of the *Midland Florist*, which I am sorry to find is entirely out of print. However, I am glad you intend to reprint those remarks in a forthcoming number, for I am sure they will be read with pleasure by a whole army of Tulip-growers who have risen since that period. I shall only answer one question more, and leave the others until the January number. A grower asks what is the highest price a Tulip will fetch? What does he mean? A high price for a Tulip-root at the present day would be 5*l.*, but in the year 1637, one hundred and twenty Tulip-roots were sold by auction for the enormous sum of 90,000 guilders, a sum equal to about 8,437*l.* One flower alone, with offsets, fetched 487*l.*; but in the seventeenth century, *Semper Augustus* fetched the enormous price of about 600*l.* A good Tulip-bed is worth a good round sum, although it is difficult to fix on any precise amount.

J. W. O.

Strawberries.

[Continued from page 388.]

 **A REINE** (De Jonghe).—Large fruit, of a long flattened form, rosy white colour, flesh firm, white, very perfumed, and of a delicious flavour.

MARQUISE DE LA TOUR MAUBOURG (Jamin and Durand).—Fruit beyond the average size, bright red colour, flesh pale red, sweet and high flavoured, of good taste. Strong and prolific plant.

MONSTREUSE DE ROBINE (Baumann).—Fruit of an odd form, often enormous, vermilion colour, white fleshed, slightly edged with red, sweet, acid, and high flavoured. A very prolific variety.

NE PLUS ULTRA (De Jonghe).—A very beautiful and good Strawberry of an odd form, sometimes of an enormous size, seeds prominent, black red colour, flesh red with pale streaks, hollow, sweet, pasty, without juice, ripens early.

NIMROD (Lucombe & Co.)—Beautiful and good fruit, of an elongated flattened form of the largest size; the same kind as Eleanor. Flesh red, pink in the centre, sweet, and high flavoured; one of the latest to ripen.

PRINCE ALFRED (Ingram).—Very large fine fruit of a pointed heart shape, deep red glossy colour, flesh hollow, red veined with white, sweet, high flavoured, slightly acid.

PRINCE ARTHUR (Willmot).—Very large elongated fruit slightly flattened at the end, regular, red, flesh white to the centre, a little acid, high flavoured, ripens late. A strong and prolific variety.

PRINCE IMPERIAL (Graindorge).—A good variety with fine cone-shaped fruit of an average size, red, flesh of an even rose colour, hollow, sweet, perfumed, high flavoured, a strong and prolific variety, earlier than Keens' Seedling. It appears to be well suited for forcing.

***PRINCE OF WALES (Ingram).**—Average sized Strawberry, most frequently conical, red coloured, flesh white streaked with red, hollow, sweet and high flavoured, early and very prolific.

PRINCESS ROYAL OF ENGLAND (Cuthill).—Strong, early, and prolific variety; its fruit is large or middling sized, of a conical form, orange red colour, seeds prominent, flesh of a delicate white, sweet, very high flavoured, having a slight musky taste.

***PRINCESSE ROYALE (Pelvilain).**—Large fine elongated fruit, bright red glossy colour; flesh full and firm, rosy white, rather high flavoured, tolerably sweet; an early prolific sort, better calculated for forcing.

***QUEEN VICTORIA (Myatt's).**—Fruit very large, almost round, vermilion red and glossy, flesh red veined with white, slightly and sufficiently perfumed; ripens about the middle of the season. A hardy and prolific variety.

RIVAL QUEEN (Tiley).—Very strong plant, the largest sized fruit, of a conical form, orange red colour, seeds prominent, flesh white, very delicate, sweet and perfumed.

***SIR CHARLES NAPIER (Smith).**—Pointed heart-shaped fruit, regular, with white flesh, firm, good tasting, a little acid and high flavoured, a prolific variety, and appears to be easily forced; ripens the second season.

***SIR HARRY (Underhill).**—Fruit very large, almost round, of a deep red colour, flesh white, sweet, and perfumed. A prolific variety, and easily forced. We have seen perfectly enormous fruit of this sort from English growers.

***SIR WALTER SCOTT (Nicholson).**—Beautiful variety, with very large fruit of an elongated form, pointed, deep red colour, seeds prominent, flesh white, firm, sweet, and perfumed; a very great bearer, and well suited for forcing.

STIRLING CASTLE PINE.—Large long fruit, red, flesh tolerably solid and firm, pale red, sweet, high flavoured and perfumed; half early. A very valuable variety on account of the firmness of its fruit, which

enables it to stand travelling, and keep good longer after it is gathered than most sorts.

SURPRISE (Myatt's).—Splendid fruit, elongated, flattened, and square at the end, light red colour, with white tips, flesh white, sweet; seeds prominent; does very well in dry soils; tolerably early.

TRIOMPHE.—An American sort, bearing well even the first year, the fruit of an average size, but of a very good flavour, and forces well.

VICOMTESSE HÉRICART DE THURY (Jamin and Durand).—Fruit middle-sized or large, elongated, cone-shaped, often flattened at the end, red, flesh rosy and pale red, high flavoured, sweet, good. A prolific early variety.

***VICTORIA** (Trollope).—Fine large fruit, round and regular, vermilion red colour, flesh slightly hollow, juicy, sweet, of good flavour, tolerably precocious and hardy. Forces well, and is also cultivated in open fields, in some places near Paris.

Much discussion is now going on in the Floral world with regard to the best Strawberries. We last month gave a list of the best known in France; this month we give the result of some interesting experiments published for the use of the Fellows of the Society only, but which will be read with great interest, as the result of careful notes made by competent persons,—the Fruit Committee consisting of gentlemen well acquainted with all the kinds.

The examination of the collection of Strawberries growing at the Garden at Chiswick, was deputed to a sub-committee of the Fruit Committee, which met from time to time during the fruiting season, and tested the qualities of such kinds as were in a condition for examination. The excessively hot dry weather was, however, unfavourable to some of the late varieties which had been planted, and prevented satisfactory notes being taken of them. The sub-committee, moreover, thought it desirable that much more complete collections should in future seasons be planted out for the especial purpose of obtaining more complete infor-

mation on the subject. The following are the notes and observations made:—

Ajax (Nicholson).—Fruit large, roundish, deep red; calyx small, reflexed; seeds slightly imbedded; flesh pale red, juicy, and tolerably rich. Leafstalks hairy, very tall and strong; leaflets, of which there are sometimes five, very large, broad, widely serrated. Altogether the plant is of extraordinary vigour, but a shy bearer, growing too much to leaf in the open ground; yet it answers well in forcing, its excessive vigour being checked in consequence of the confinement of its roots in the pots.

Belle Bordelaise.—This is said to have been obtained from the old Hautbois fertilised by the Alpine. It appeared, however, to be exactly the same as the Prolific or Conical Hautbois.

British Queen Seedling.—Fruit middle-sized, obtusely conical, dark red. In point of flavour, this variety was found to be so much inferior to the British Queen, that it was pronounced to be not worth growing.

Captain Cook (Nicholson).—Fruit generally roundish-ovate, but irregular, red, with frequently a green point; flavour scarcely second-rate. Habit of the plant rather dwarf. Leafstalks hairy; leaflets small, oval, sharply serrated, glaucous beneath.

Comte de Paris (Pelvilain).—Fruit large, roundish heart-shaped; flesh pale red throughout, firm, and very acid. Leafstalks slightly hairy, the hairs depressed; leaflets roundish obovate. The fruit was considered too acid for dessert.

Duchesse de Trévise.—See Vicomtesse Héricart de Thury.

Eliza (Myatt).—Fruit middle-sized, ovate, with a neck light red; flesh pale red next the outside, whitish towards the centre, juicy, rich, sweet, and very excellent. Leafstalks hairy, the hairs spreading horizontally; leaflets roundish-oval, obtusely serrated. A good bearer, ripening about the middle season. It is hardier than the British Queen, and will therefore survive in cold situations where occasionally the last-named sort

does not completely withstand very severe winters. It was highly approved when tried in comparison with other sorts. Omar Pacha, as received in the Garden of the Society, proved to be exactly the same as Myatt's Eliza.

Excellente (Lorio).—Fruit large, roundish-ovate, pale-red, with numerous small prominent seeds. Leafstalks hairy; leaflets broad and thin, widely and sharply serrated. A good bearer, but not well-flavoured.

Exhibition (Nicholson).—Fruit middle-sized, oblong, ovate, or irregular, bright red; seeds prominent; flesh dull yellow, and of bad flavour. Leafstalks dwarf hairy; leaflets roundish, rather sharply serrated. A good bearer, notwithstanding which it cannot be recommended, owing to its inferior quality.

Filbert Pine (Myatt).—Fruit above middle-size, conical, pale-red on the shaded side, and dull purplish red on the exposed side; seeds prominent; flesh firm, solid, and rich, pale, with a pink core. Leafstalks slightly hairy, the hairs adpressed; leaflets roundish oval. The quality of the fruit of this variety is variable, but often remarkably good.

Fill-basket (Nicholson).—Fruit rather large, roundish, sometimes flattened on the sides; flesh pale red, with a hollow core, and possessing but little flavour. Leafstalks very heavy; leaflets deeply and sharply serrated, glaucous beneath.

Highland Chief.—Fruit large, roundish or roundish ovate, light red; flesh pale red, soft, rich, and very excellent, with an agreeable mild acidity. Leafstalks rough and very hairy; leaflets obovate, coarsely serrated. A first-rate sort.

La Reine (De Jonghe).—Fruit middle-sized, of a longish shape, light red; flavour good. The variety cannot, however, be recommended at present, as it appears to be a shy bearer. Further trial is therefore necessary.

Marquise de la Tour Maubourg.—See Vicomtesse Héricart de Thury.

Ne Plus Ultra (De Jonghe).—Fruit large, of a sin-

gular oblong form, dark red; flesh solid, rich, and pleasant. Leafstalks hairy, the hairs depressed; leaflets roundish, obovate, rather widely serrated.

Omar Pacha.—See Eliza.

Prince of Wales (Cuthill).—Fruit middle-sized, conical, bright red; flesh firm, but rather acid. Leafstalks very hairy, the hairs spreading horizontally; leaflets ovate or obovate, pale green, glaucous beneath. An extraordinary bearer, ripening late.

Princess Royal of England (Cuthill).—Fruit middle-sized, conical or roundish ovate, with a neck red next the sun, pale red where shaded; seeds prominent; flesh pale red, whitish near the centre, tolerably rich, with an agreeable aroma. Leafstalks hairy, the hairs spreading or horizontal; leaflets rather small, obovate, sharply serrated. An abundant bearer, and worthy of general cultivation.

Ruby (Nicholson).—Fruit large, roundish, dark red; flesh pale, soft, with a large core. Leafstalks hairy, the hairs depressed; leaflets oval, sharply serrated. The flavour of this proved bad.

Sir Walter Scott.—Fruit large, oblong, pointed, deep red, with prominent seeds; flesh pale, firm, but its quality was not approved. The plant is of dwarf, robust habit. Leafstalks very hairy; leaflets roundish or roundish obovate, widely but not deeply serrated.

Stirling Castle Pine.—Fruit large, ovate, dark red; flesh pale red, firm, but of second-rate quality. Leafstalks rough and likewise hairy, becoming brownish-red when old, resembling in these respects the old Hudson's Bay Strawberry, from which it seems to have been bred; leaflets obovate.

Triomphe.—This so much resembles the Hudson's Bay, as to lead to the conclusion that it is probably a seedling from it. Its aroma somewhat resembles that of the Vicomtesse Héricart de Thury, but the latter is in every respect superior to it.

Vicomtesse Héricart de Thury (Jamin).—Fruit middle-sized or large, conical, deep scarlet; seeds bright yellow, slightly imbedded; flesh pale red, with scarcely any core; flavour brisk, rich, and sweet. Ripens early,

or about the same time as Keens' Seedling. Leafstalks moderately tall, hairy, the hairs disposed horizontally, but on the scapes and runners they are depressed; leaflets obovate, obtusely serrated, smooth above, somewhat hairy beneath. The plant is hardy, a free grower, and a very abundant bearer. The Marquise de la Tour Maubourg, and the Duchesse de Trévisé, proved to be the same as this, in the Garden of the Society.



Mr. Salter's Chrysanthemums.

A VISIT to this nursery at the present time will amply repay all lovers of Chrysanthemums; for Mr. Salter's splendid collection of these flowers is now in full beauty, and after twenty years' attention and careful selection from thousands of seedlings, it is well worth seeing. It contains various new and improved varieties, many of which were raised in this nursery, and there are also several seedlings from Guernsey, whose rich colours and fine form make them peculiarly desirable, and no well-chosen collection will soon be considered complete without them. The extremely neat arrangement of the plants and general effect of the whole house in which they are placed, displays a taste which might with advantage be imitated at this time of the year in some of our large conservatories. To the house usually set apart for the exhibition of Chrysanthemums another compartment has been added, in which the larger specimens are placed. For the first time Mr. Salter has disbudded some of his specimen plants to procure large flowers, and in this he has fully succeeded. He has usually exhibited them as they were removed from the open ground to the greenhouse. One prominent feature in this collection is worthy of remark, and that is, the flowers are grown naturally, they have not had their faces bowed down

to the ground to produce an incurved petal, and no tweezers are permitted to touch them ; their qualities, good or bad, are therefore fairly and honestly presented to view. Mr. Salter has for many years devoted his attention to this most useful flower ; and to him must be ascribed the credit of having introduced to our gardens many of the best varieties.

Of new Pompones, the following are well worth attention :—*Christiana*, clear yellow, with small brown tips, very double, and dwarf ; a valuable acquisition ; received a certificate at Nottingham. *Edith*, reddish rose or rose salmon, free flowering, double, and distinct ; *Queen Mab*, deep red and dark orange, in the way of *Dr. Bois Duval*, but brighter colour ; *Emily*, rose salmon with lighter centre, quite new in colour, double, and distinct ; *Mrs. Turner*, pure white, very double, and of first-rate form ; a fine plant for purposes of exhibition ; *Eva*, golden yellow, double, and good ; *Distinction*, blush, or silver lilac, flowers very full in form, and habit like *Madame Fould* ; *Mirandum*, deep rose, or rose carmine, a very distinct and pretty variety, the flowers, which are produced in great abundance, being regularly fringed, which give this plant a very novel appearance ; *Lara*, pale yellow, tipped bright rose, fine form, double, and good ; *Musidora*, chesnut and orange, small flowers of perfect form ; *Madame Victor Verdier*, rose lilac changing to white, very pretty, quite double, and very attractive ; *Augusta*, blush white, early flowering, very dwarf, and a first-rate plant for the conservatory or exhibition ; *Andromeda*, pale sulphur yellow, tipped brown, quite double, and very free—a perfect gem, and for specimens invaluable ; *Astrea* (*Anemone*), lilac blush, one of the best of this class ; *Golden Cedo Nulli* (*Anemone*), golden yellow and brown points, very fine ; *Mrs. Dix*, pale yellow, bordered rose, full size, very double, and first-rate ; *Miss Talfourd*, pure white, abundant flowerer, in the way of *Argentine* ; *Emma*, rose purple, and yellow centre, free, and of good habit.

Among Seedlings raised by Mr. Salter, the following

appeared to be improvements on old varieties :—Arthur Wortley, cinnamon and red, very full and beautifully incurved ; received a First Class Certificate at the Crystal Palace and also at Nottingham. Emperor (Anemone), guard petals blush, with yellow and rose centre ; a noble flower. Mrs. W. Holborn, pure white, large, full, and beautifully incurved ; received a First Class Certificate at the Crystal Palace, and also at Nottingham. Ajax, Indian red, large, double, and well incurved. Purity, paper-white, large, and showy. Rosa (Anemone), guard petals bright rose pink and yellow centre. Queen of the Isles, white-tinted blush, incurved and good : received a Certificate at Nottingham. Mr. Murray, deep rose-violet, or plum colour—a new colour and very attractive. Ethel, deep rose-violet, very close and full—new shade of colour. John Bunyan, bright rose-lilac, very full, and incurved. Dr. Rozas, dark rose-carmine, very full and incurved. Crista-galli, orange-scarlet, and yellow back—a very showy tasselled variety, an improvement on Duc de Conegliano.

Among other novelties, the following raised by an eminent cultivator in Guernsey, will be found very good :—Jewess, red and orange, free, early, and very showy ; Comet, bronzed orange ; Bouquet de Fleurs, red crimson, with yellow back, very large, incurved, and splendid ; Pictoreum Roseum, dark rose, fine in form and colour ; Yellow Perfection, a splendid flower in form and colour, an improvement on Plutus ; General Hardinge, Indian red and gold ; Alma, rose purple, broad petals, incurved, and good ; Alarm, rich crimson, large, and good ; Beauregard, deep crimson maroon ; Novelty, blush white, full, and incurved in the way of Goliath ; Grand Sultan, dark cinnamon, large, and incurved ; Clipper, red carmine, gold back, incurved, and fine ; Jardin d'Hiver (Anemone), rose purple ; Wonderful, light carmine crimson, very attractive.

Among older varieties were very large flowers of the following :—Queen of England, Auguste, Mie, Hermione, Plutus, Alfred Salter, Dupont de l'Eure, King, Versailles Defiance, Leon Leguay, Golden Queen, Chris-

tine, Golden Cluster, Julie Lagravere, Progne, Prince Albert, Anaxo, Goliath, Princess Marie, Lysias, Nonpareil, Themis, Vesta, Trilby, Madame Cammerson, Cassy, and Sulphureum Superbum.—*Gardeners' Chronicle*.



Golden Hambro' Grape.

SIR,—In your last Number you gave some opinions respecting the new grapes. Mr. Cramb's opinion of my seedling grape, the Golden Hambro', is correct in the main; and, with regard to setting its berries, the temperature, 68° to 70° , as a maximum, would be required for any grape at that stage of its growth. But to expel any doubts on that head, the Golden Hambro' sets as free as its female parent, the Black Hambro', and in every way requires exactly the same treatment. With regard to the weight and size of the bunches Mr. Cramb is correct, although, as will be seen from the following, it is capable of growing much larger, "when well grown." The three bunches I showed at Chiswick, in 1855, weighed 6lbs. 8oz., and were in every way equal to three fine bunches beside them of Black Hambro' from Mr. Fleming, and the three bunches shown by Mr. Scott, gardener to Lord Sherborne, weighed 9lbs.—one bunch weighing $3\frac{3}{4}$ lbs.—at the last September show at the Crystal Palace. I write this to show the difference between parties, and cannot help but notice how far in the rear is grape growing in the north.

I am much indebted to my kind patron—the above-named nobleman—in consenting to plant a whole house of eight vines with my Golden Hambro', and thereby testing its merits so thoroughly and skilfully; for although only *two years planted*, it produced the above-mentioned fine fruit. I name this to show the dissatisfied what may be done by perseverance, skill, and industry; and in lieu of blaming raisers of seed-


ling grapes wrongfully, to put their shoulders to the wheel in real earnest, and then they will have their reward and gain the prize, as Mr. Scott did with his grapes.

M. BUSBY, F.H.S.



Chrysanthemums.

[FROM OUR LONDON CORRESPONDENT.]

 KNOW that the readers of the *Midland Florist* will be anxious to hear all about the Chrysanthemum Shows, especially those of the metropolis. Of the favourable or unfavourable season I will not speak, but leave the matter to men who have been growers for a longer period than myself. The Chrysanthemum has now got so firm a hold on the sympathies of the people, that it may be well termed a national flower. I am glad to see that our example of holding exhibitions solely of the Chrysanthemum has been taken up in the provinces; I trust that not only will these meetings be resumed next season, but that we shall also see fresh ones start up. I am sure great satisfaction must be the result. To commence, I suppose I cannot do better than begin with a short notice of what I saw at the Crystal Palace on Lord Mayor's Day, November 9th. In trained pom-pones, Mr. Wiggins, gardener to E. Beck, Esq., exhibited some splendid specimens,—they were one mass of bloom, flat on the surface. His plants were Bob, dark-brown; Cedo Nulli, white and brown (anemone); Hélène, rosy violet; St. Thias, chestnut orange; Dureflet, rose and carmine; and General Canrobert, yellow; a better set-up stand of six plants I think I never saw. The second lot were set up (and were but little behind the first) by Mr. Ward, gardener to W. Fowler, Esq., of Tottenham. They were Cedo Nulli, Mustapha, brown crimson; Trophe, mottled rose; Requiqui, violet-plum; General Canrobert; and Dureflet.

The third lot were also very good, of a large size, and were remarkably well trained; they were exhibited by Mr. Candy, gardener to E. Sanderson, Esq., Wimbledon. They were Requiqui, Cedo Nulli, Hélène, Bob, Brilliant, crimson scarlet, and Dureflet.

In single specimens, the first prize was taken for those grown in eight-inch pots with Cedo Nulli grown by Mr. Shrimpton.

In the large flowering class, Mr. Oubridge (whose name will be familiar to every reader of the *Midland Florist* as *our* Mr. Oubridge, who has from time to time given us such excellent lessons) came first with remarkably fine plants—Defiance, white; Progne, splendid violet carmine; Christine, peach; Pilot, deep rose; Vesta, ivory white; and Annie Salter, golden yellow. The second stand was exhibited by Mr. George, with Queen of England, Aregina, Plutus, Annie Salter, Madame Cammerson, and Christine; while the third fell to the lot of Mr. Hatch with Chevalier, Damage, Madame Cammerson, Havelock, Christine, and Annie Salter. I cannot pass over the nurserymen without according to Mr. Foster, and Mr. Merry, and Mr. Forsyth every praise for their remarkably fine collection, which, however, I have not space to name.

In cut flowers, and oh! were they not splendidly done? Stoke Newington sent their champion, Arthur Wortley, Esq., into the field, and right earnestly did he do justice to the cause. His flowers were Dupont de l'Eure, Plutus, Themis, Aristée, Defiance, Alfred Salter, Hermione, Pio Nono, Queen of England, Madame Andry, Glory (an exceedingly good thing), Maréchal Duroc (ditto), Nonpareil, Curtius Quintus, Aimée Feriere, Christophe Colomb, Yellow Formosum, Arc-en-ciel, Princess Maria, Formosum, Général Negrier, Lysias, and Goliath.

The second prize for twenty-four was gained by E. Saunderson, Esq., Regent's Park, with Madame Miellez, Arc-en-ciel, Beauty, Pio Nono, Plutus, Madame Le Bois, Campestronii, Christophe Colomb, Themis, Dupont de l'Eure, Trilby, Miss Kate, Lysias, Nonpareil, Insigne, Gem, Aregina, Anaxo, Madame Andry, Cassy, Hermione,

Goliath, and Raymond. Mr. Oubridge and Mr. Ward were third and fourth.

In nurserymen's cut flowers, Mr. Bird was first. Mr. Merry, Mr. Wilkinson, and Mr. Forsyth following in his wake closely. The best flowers were: Princess Maria, Pictoreum Roseum, Beauty, Themis, Aregina, Novelty, Anaxo, Nonpareil, Madame Andry, Plutus, Christophe Colomb, Virgil, Maréchal Duroc, Hermione, Raymond, Goliath, Formosa, Duke, Yellow Formosa, Pio Nono, Yellow Perfection, Albin, Trilby, and Dupont de l'Eure.

Among novelties, and I must not pass them over, Mr. Salter exhibited Arthur Wortley, a good globular flower, bronze; and Mrs. W. Holborn, a good flower in the style of Annie Salter: these both received first-class certificates. Other good things were exhibited, but of these I will speak further when buying season commences. Mr. Holland, also an old friend, familiar by his writings to us all, received a first-class certificate for Miss Augusta, a really splendid thing—it is a pure white, with splendidly fine petals.

At Stoke Newington, for I reckon this the second, there was a splendid show. Mr. Oubridge was first, and gained the silver cup for six large-flowered varieties; they consisted of Christine, Annie Salter, Pilot, Defiance, Vesta, and Dr. Maclean: while Mr. Wiggins came with a like reward with six pompones, decidedly the best ever exhibited; they were trained on horizontal wire trellises four or five feet, and comprised the following,—Bob, Dureflet, Cedo Nulli, Hélène, General Canrobert, and St. Thias; the second and third prize were also very good, but not having space, I cannot enumerate them.

In cut blooms Mr. Bird obtained a silver cup for the best collection of 36. It contained Queen of England, Themis, large and fine, Anaxo, Madame Lebois, Goliath, Duke, Princesse Marie, Nonpareil, Beauty, Plutus, and the following new varieties, viz., Alarm, Alma, Pictoreum Roseum, Novelty, a beautiful white; Pearl, Yellow Perfection, and Beauregarde, all of which are flowers of great promise. The next best were from Mr. Wilkinson, of Old

Ford, the best of which were Queen, Goliath, Progne, King, Lucidum, and Madame Andry. In 24 blooms the best came from Mr. Bird, viz., Nonpareil, Hermione, Dupont de l'Eure, Anaxo, Raymond, Trilby, Albin, Goliath, Novelty, Aregina, Marshal Duroc, Perfection, Themis, Pictoreum Roseum, Pio Nono, Beauty, Stella, Globosa, Formosum Luteum, Duke, Plutus, Queen, Formosum, and Madame Andry. Mr. Wilkinson's 24 contained good blooms of Themis, Goliath, Dupont de l'Eure, Plutus, and Golden Queen, a new kind, let out this season, by Mr. Salter, of Hammersmith. Mr. Elliot, of Stamford Hill, showed 24 good flowers, among which Themis, Queen, Formosum, Dupont de l'Eure, Defiance, Trilby, and Anaxo were good. Mr. Oubridge and Mr. Monk also showed well in this class. In the class of 12 blooms, the best came from Mr. Oubridge, who sent Trilby, Anaxo, Themis, Nonpareil, Hermione, Plutus, M. Andry, Duke, Marshal Duroc, Formosum Luteum, Dupont de l'Eure, and Stella Globosa, all evenly grown and in every way excellent. Mr. Elliot had the second best 12, among which were fine specimens of M. Andry, Lysias, Themis, Queen, Anaxo, Goliath, Alfred Salter, Dupont de l'Eure, Defiance, Duke, Stella Globosa, and Formosum. Mr. Monk sent Goliath, Aregina, Raymond, Themis, Marshal Duroc, Duke, M. Andry, Dupont de l'Eure, Stella Globosa, Plutus, and Formosum Luteum, all good examples of skilful cultivation. Mr. Holland also exhibited his Miss Augusta, which again proved itself all that has been said of it.

I have not space to enumerate the other shows I attended, and shall simply give the names of the best flowers :—

Aimée Ferrière, Goliath, Plutus, Madame Lebois, Racine, Stella, Christophe Colomb, Pio Nono, Trilby, Aregina, Versailles Defiance, Anaxo, Ariste, Albin.

At the SOUTH METROPOLITAN I noted the following cut blooms :—William Tell, Christine, Temple of Solomon, Annie Salter, Madame Godereau, Gluck, George Sand, Louis Bonamy, Nonpareil, Themis, Hermione, Dupont de l'Eure, Plutus, Anaxo, Vesta, Auguste

Mie, Goliath, Madame Andry, Racine, Marshal Duroc, Luteum Formosum, Albin, Fabius, Arestie, Phidias, and Versailles Defiance.

The specimen plants consisted of pompones—Brilliant, Cedo Nulli, Aurora Borealis, Durufflet, Madame Celestine, Philopal, Dr. Boisduval, Vesta, Annie Salter, Mount Etna, Union, Brilliant, Golden Cedo Nulli, Plutus, Defiance, Christine, Bob, Antonius, and Adonis. Mr. Wiggins sent a magnificent plant.

At the EAST LONDON CHRYSANTHEMUM SOCIETY. Cut blooms, Aimée Ferrière, Louis Bonamy, Gluck, Regulus, Goliath, Plutus, Racine, Dupont de l'Eure, Etoile Polaire, Stellaris Globosa, and Anaxo. Mr. Salter produced some new Anemone-centered, as did also Mr. James, of Stoke Newington, consisting together of four choice stands.

Among specimen plants, the best were Adonis, Cedo Nulli, Bob, Drin Drin, and Hélène. A great number of fine blooms were exhibited here, but as the names of the sorts are given in the preceding exhibition, I have thought it unnecessary to repeat them. I can only say that should any of the readers be desirous of commencing the growth of this beautiful flower, he cannot do better than make a selection from these lists. I have enumerated the principal varieties in each class. None of those named will, I believe, be over six shillings per dozen; and I am sure that there is no single flower in the whole batch but will please. They were all shown well, and, as whatever man has done man may do, I think the matter rests with ourselves as to the results.



Our Miscellany.

THE FINEST EARLY TULIPS IN CULTIVATION.—
Cardinal's Gold; The Great Redan; Duc de
Nemours; Donna Maria; Cramoisie Superbe;
Queen Victoria; Prince de Ligne; Reine Blanche;

Golden Standard ; Violette Blanche ; Rose Riante ; Rose Incomparable ; Isabella ; Lord Melbourne ; Lady Melbourne ; Belle Alliance ; Bride of Haarlem ; Dorothea Blanche ; Eandragt ; Yellow Standard ; White Potterbaker ; Vermilion Brilliant ; Parisine ; Couleur de Ponceau ; La Sultane. Van Thols are mere weeds by the side of any of these.

A FEW GOOD AZALEA INDICAS.—Bouquet de Flore, Admiration, Bealii, Beauty of Europe, Beauty of Reigate, Broughtonii, Coronata, Criterion, Crispiflora, Empress Eugenia, Eulalia Van Geert, Extranea, Gem, Iveryana, Magnificent, Perryana, Duke of Devonshire, Petuniflora, Prince Albert, Queen Victoria, Rosca Punctata, Rosy Circle, Symmetry, Triumphans, Variegata Superba.

MIDLAND COUNTIES CHRYSANTHEMUM SOCIETY.—The annual exhibition of this Society was held on Monday and Tuesday, 7th and 8th Nov., in the Mechanics' Hall, Nottingham. The show, considering the weather, and the early date, was very good. Much dissatisfaction was, however, manifest among the exhibitors at the decisions of the judges ; in several cases, we think not without reason. The second prize in Class I. was decidedly in the opinion of every one but the judges No. 1. We were told, we know not with what truth, that No. 2 forfeited claim to first place in the opinion of the judges through having a tartan plant (Henry de Forcia) among its numbers. We hardly think this can be true. Then again in Class F, certainly the first prize was due to Mr. Lymbery, who is disqualified for a prize (and awarded a certificate of merit only), on account of his having trained them up wire balloon-shaped trainers ; but surely here must be some mistake or unpardonable inconsistency, as in Class A we find the first prize awarded to plants hooped round with wire, though certainly not crossed again with wire. The majority of the plants in the room indeed had each stem pegged, and thus the same object was gained as if wired. We cannot help thinking that some grave errors were committed, which created very disagreeable impressions in the minds of many besides the exhibitors themselves.

The judges were Mr. Glenney, F.H.S., Mr. Gadd, Mr. Beech, Mr. Corkwell, and Mr. Gibbons. The following prizes were awarded: DEALERS—1, Mr. Taylor; 2, Mr. Eyre; 3, Mr. Soars. GENTLEMEN: *Twelve plants*—1, Rev. S. R. Hole; 2, Mr. Needham; 3, Mr. Pounal: *Nine plants*—1, L. Baillion, Esq.; 2, Mr. Mitchell, gardener to W. C. Boden, Esq.; 3, Mr. Lymbery: *Six plants*—1, L. Heymann, Esq.; 2, Rev. S. R. Hole; 3, Mr. Potter; 4, Mr. Lymbery. AMATEURS: 1, Mr. Solloway; 2, Mr. Attenborough; 3, Mr. Dalton: *Six plants*—1, Mr. Marlow; 2, Mr. Mason; 3, Mr. Swan; 4, Mr. Smith; 5, Mr. Herrod: *Three plants*—1, Mr. Pickerill; 2, Mr. Burnham; 3, Mr. Marlow; 4, Mr. Attenborough; 5, Mr. Hampson: SPECIMEN—1, Mr. Marlow; 2, Mr. Herrod: Extra prizes for best plant, Mrs. Dix—1, Mr. Pounal; 2, Mr. Mason; 3, Mr. Smethurst; 4, Mr. Taylor: *Twelve cut blooms*—1, Mr. Needham; 2, Mr. Hampson; 3, Mr. Pounal; 4, Mr. Attenborough: *Six cut blooms*—1, Mr. Wright; 2, Mr. Marlow; 3, Mr. Holloway; 4, Mr. Pounal.



Floral Exhibitions.

STOCKPORT.

ORIGINAL TULIP SHOW, HELD AT MR. JAMES ASTLEY'S, GRAPES INN,
CHURCH-GATE, MAY 26TH, 1859.

Maiden Prize.—Charles X.; W. Foulds.

Feathered Premier.—Louis XVI.; T. Foulds.

Flamed Premier.—Sans Joe; D. Woolley.

Feathered Bizarre.—1. Charles X.; T. Foulds. 2. Charles X.; W. Foulds. 3. Magnum; T. Handford. 4. Lilford; G. Greaves. 5. Catafalque; I. Morris. 6. Cobbler; T. Foulds. 7. Crown Prince; T. Shottin. 8. Thomas Brown; T. Shottin. 9. Waterloo; J. Hart.

Feathered Byblæmen.—1. Edgar; J. Hart. 2. Louis XVI.; T. Foulds. 3. Bienfait; G. Greaves. 4. Beauty; G. Greaves. 5. Princess Royal; Woolley. 6. Incomparable; B. Shottin. 7. La Belle Narcene; B. Shottin. 8. Abbot's Gem; Woolley. 9. Midland Beauty; B. Shottin.

Feathered Rose.—1. Lady Crewe; Woolley. 2. Heroine; T. Foulds. 3. Lady Crewe; T. Foulds. 4. Newcastle; T. Foulds. 5. Jupiter; J. Hart. 6. Hero of Nile; Robinson. 7. Catherine; G. Greaves. 8. Lady Lilford; B. Shottin. 9. Roi de France; J. Hart.

Flamed Bizarre.—1. Sans Joe; J. Hart. 2. Sans Joe; B. Shottin. 3. Polyphemus; G. Greaves. 4. Milton; T. Handford. 5. Lustre; G. Greaves. 6. Charles X.; I. Moors. 7. Caliph; Woolley. 8. Pilot; Woolley. 9. Don Carlos; B. Shottin.

Flamed Byblæmen.—1. Lord Denman; Woolley. 2. Lord Denman; Woolley. 3. Alexander Magnus; D. Woolley. 4. Godet Parfait; Robinson. 5. Erin; I. Moors. 6. Bienfait; G. Greaves. 7. Maid of Orleans; W. Foulds. 8. Van Amburgh; Woolley; 9. Lord Gough; J. Hart.

Flamed Rose.—1. Triomphe Royale; J. Hart. 2. Aglia; J. Hart. 3. Unique; T. Foulds. 4. Triomphe Royale; J. Hart. 5. La Vandicken; J. Hart. 6. Anastasia; B. Shottin. 7. Vesta; J. Hart. 8. Seedling; B. Shottin. 9. Unknown; T. Foulds.

Breeders, Bizarre.—1. Duke of Kent; T. Foulds. 2. Earl Radnor; T. Foulds. 3. Sir J. Paxton; Woolley. 4. Pilot; G. Greaves. 5. Polyphemus; B. Shottin. 6. Sir C. Napier; Woolley. 7. Catafalque; T. Foulds. 8. Lord Darnley; Woolley.

Byblæmen.—1. Duchess of Orleans; T. Handford. 2. Lord Vernon; T. Foulds. 3. Miss Forrest; Woolley. 4. Incomparable; T. Foulds. 5. Godet Parfait; Woolley. 6. St. Sophia; G. Greaves. 7. Purple Perfection; D. Woolley. 8. Delicata; D. Woolley.

Rose.—1. Lord Derby; D. Woolley. 2. Celestial; G. Greaves. 3. Juliet; T. Foulds. 4. Anastasia; D. Woolley. 5. Lady Stanley; D. Woolley. 6. Andromeda; D. Woolley. 7. Portia; D. Woolley. 8. Newcastle; G. Greaves.

Yellow Self.—Min d'Or; T. Foulds.

White Self.—White Seedling; J. Hart.

STOCKPORT.

TULIP SHOW, HELD AT MR. S. MASSEY'S, PLOUGH INN, CALE-GREEN,
MAY 28TH, 1859.

Feathered Premier (set of China).—Bienfait; W. Smith.

Flamed Premier (brass pan).—Sans Joe; W. Smith.

Feathered Bizarre.—1. Magnum; T. Bullock. 2. Charles X.; W. Lambert. 3. Duke de Savoy; H. Housley. 4. Magnum; W. Smith. 5. Lord Lilford; W. Smith. 6. Apelles; W. Smith. 7. Polyphemus; H. Housley. 8. Royal Gem; T. Bullock.

Flamed Bizarre.—1. Sans Joe; W. Smith. 2. Polyphemus; W. Smith. 3. Charles X.; J. Turner. 4. Sans Joe; W. Smith. 5. Duke of Devonshire; W. Smith. 6. Magnum; W. Lambert. 7. Albion; W. Lambert. 8. Lustre; Brown.

Feathered Byblæmen.—1. Bienfait; W. Smith. 2. Bienfait; W. Smith. 3. Edgar; W. Smith. 4. Beauty; G. Greaves. 5. La Belle Narene; Lambert. 6. Bagot; Levi Hussey. 7. Washington; W. Smith. 8. Princess Royal; L. Hussey.

Flamed Byblæmen.—1. Lord Denman; W. Smith. 2. Lord Denman; H. Housley. 3. La Belle Narene; W. Smith. 4. Violet Wallers; W. Smith. 5. Bienfait; W. Smith. 6. Unknown; H. Housley. 7. Van Amburgh; G. Greaves. 8. Bacchus; S. Bowden.

Feathered Rose.—1. Lady Crewe; W. Smith. 2. Heroine; J. Clarke. 3. Count; W. Smith. 4. Lady Crewe; S. Bowden. 5. Hero of Nile; I. Moors. 6. Newcastle; G. Greaves. 7. Walworth; W. Smith. 8. Arlette; H. Housley.

Flamed Rose.—1. Aglaia; J. Clark. 2. Aglaia; T. Bullock. 3. La Vandicken; W. Smith. 4. Anastasia; J. Clarke. 5. Triomphe Royale; S. Bowden. 6. Unique; W. Lambert. 7. Vesta; H. Housley. 8. Unknown; H. Housley.

Bizarre Breeder.—1. Pompe Funebra; W. Smith. 2. Polyphemus; T. Bullock. 3. Duke of Kent; W. Smith. 4. Pilot; G. Greaves. 5. Unknown; W. Smith.

Byblæmen Breeder.—1. Democrat; W. Smith. 2. Orleans; H. Housley. 3. Santa Sophia; W. Smith. 4. Duke of Sutherland; Greaves. 5. Lord Denman; J. Clarke.

Rose Breeder.—1. Catherine; W. Lambert; 2. Village Maid; J. Clarke. 3. Lord Derby; I. Moors. 4. Rosy Gem; G. Greaves. 5. Amelia; W. Smith.

Self.—1. Min d'Or; W. Smith. 2. White Perfection; J. Clarke.

BEDFORD, LEIGH, LANCASHIRE.

TULIP SHOW, HELD AT MR. RALPH MORT'S, MAY 27TH, 1859.

Maiden Prize.—1. Richard Ratcliffe, with Lord Lilford, Don Cossack. Bienfait, Siam, Heroine, and Unique.

Pans of Six Blooms.—1. (Premier) Richard Marsh, with Charles X., George IV., La Belle Narene, La Belle Heroine, and Unique. 2. Richard Hindley; Charles X., George IV., La Belle Narene, Bienfait, Andromeda, and Unique. 3. Thomas Hilton; Charles X., George IV., La Belle Narene, La Belle Andromeda, and Unique. 4. Richard Tyldesley; Lord Lilford, Polyphemus, La Belle Narene, La Belle Heroine, and Unique. 5. John Morris, with Lord Lilford, Polyphemus, Bienfait, Van Amburgh, Heroine, and Aglaia. 6. Richard Prescott; Charles X., Surpasse Catafalque, La Belle Narene, Bienfait, Heroine, and Unique. 7. John Tyldesley; Charles X., Lustre, La Belle Narene, Siam, Heroine, and Unique. 8. John Davis; Surpasse Catafalque, George IV., La Belle Narene, Siam, Comte, and Courier. 9. Adam Belshaw; Charles X., Lord Lilford, La Belle Narene, La Belle Village Maid, and Unique. 10. Joseph Lomas; Charles X., George IV., La Belle Narene, La Belle Lady Crewe, and Aglaia.

Feathered Bizarre.—1. Charles X.; J. Tyldesley. 2. Lord Lilford; Richard Ratcliffe. 3. Crown Prince; Richard Hindley. 4. Duke de Savoy; Richard Hindley. 5. Magnum Bonum; James Clegg. 6. Surpasse Catafalque; John Davis. 7. Paul Pry; R. Prescott. 8. Crompton's Fancy; J. Clegg. 9. Firebrand; J. Tyldesley.

Feathered Byblæmen.—1. Bienfait; J. Tyldesley. 2. Unknown; R. Prescott. 3. Unknown; T. Hilton. 4. La Belle Narene; R. Mort. 5. Maid of Orleans; R. Ratcliffe. 6. Winner; W. Belshaw. 7. Bagot; J. Morris. 8. Lancashire Hero; R. Prescott. 9. Unknown; R. Hindley.

Feathered Rose.—1. Lady Crewe; R. Prescott. 2. Heroine; R. Prescott. 3. Bion; R. Prescott. 4. Walworth; R. Hindley. 5. Andromeda; J. Tyldesley. 6. Rose Selina; J. Davies. 7. Comte; J. Davies. 8. Hero of the Nile; R. Hindley. 9. Hurst's Rose; J. Tyldesley.

Flamed Bizarre.—1. Stanley; T. Hilton. 2. Lustre; R. Marsh. 3. Lord Lilford; J. Tyldesley. 4. Careless; R. Marsh. 5. George IV.; R. Wilkinson. 6. Lecansique; W. Belshaw. 7. Polyphemus; J. Lomas. 9. Albion; J. Clegg. Don Cossack; W. Belshaw.

Flamed Byblæmen.—1. La Belle Narene; J. Tyldesley. 2. Bienfait; R. Marsh. 3. Adelaide; R. Ratcliffe. 4. Siam; J. Tyldesley. 5. Princess Royal; R. Ratcliffe. 6. Winner; R. Marsh. 7. E. Fournier; T. Hilton. 8. Unknown; R. Hindley. 9. Uncle Tom; R. Tyldesley.

Flamed Rose.—1. Triomphe Royale; W. Belshaw. 2. Aglaia; T. Hilton. 3. Unique; T. Hilton. 4. La Vandicken; J. Morris. 5. Lady Lilford; J. Tyldesley. 6. Governor; J. Davies. 7. Walworth; R. Hindley. 8. Ponceau Brilliant; J. Davies. 9. Rose Vestal; R. Ratcliffe.

Breeders, Bizarre.—1. Seedling; J. Morris. 2. Rodney; J. Morris. 3. Cornet; J. Davies. 4. Polyphemus; R. Hindley.

Byblæmen.—1. Unknown; W. Belshaw. 2. Belshaw's Glory; W. Belshaw. 3. Seedling; R. Ratcliffe. 4. Flora Hastings; R. Prescott.

Rose.—1. Arlette; J. Morris. 2. Lady Lilford; W. Belshaw. 3. Lady Catherine Gordon; R. Tyldesley. 4. Unknown; J. Belshaw.

Yellow Self.—Min d'Or; J. Morris.

White Self.—White Perfection; J. Morris.

BEDFORD, LEIGH.

TULIP SHOW HELD AT MR. THOMAS HIGGINSON'S, THE COTTON PLANT INN, MAY 28TH, 1859.

Pans of Six Blooms, Maiden Prize.—T. Hilton, with Charles X., George IV., La Belle Narene, Ditto, Andromeda, and Unique.

Steward's Prizes.—1. R. Ratcliffe, with Lord Lilford, Lord Milton, Bienfait, Siam, Heroine, and Unique. 2. R. Hendly, with Charles X., George IV., Bienfait, La Belle Narene, Andromeda, and Unique. 3. R. Prescott, with Charles X., Lustre, La Belle Narene, Bienfait, Lady Crewe, and Unique. 4. R. Tyldesley, with Lord Lilford, George IV., La Belle Narene, Ditto, Heroine, and Unique. 5. W. Belshaw, with Charles X., Don Cossack, La Belle Narene, Siam, Comte, Triomphe Royale. 6. Adam Belshaw, with Lord Lilford, Ditto, La Belle Narene, Ditto, Heroine, and Triomphe Royale. 7. J. Davies, with Surpasse Catafalque, George IV., La Belle Narene, Siam, Andromeda, and Governor.

Feathered Bizarre.—1. George IV.; J. Clegg. 2. Lord Lilford; P. Hilton. 3. Duke de Savoy; R. Hindley. 4. Magnum Bonum; J. Clegg. 5. Crown Prince; R. Hindley. 6. Surpasse Catafalque; J. Davies. 7. Wellington; P. Hilton. 8. Paul Pry; R. Prescott. 9. Crompton Fancy; Jas. Clegg.

Flamed Bizarre.—1. Stanley; Thos. Hilton. 2. George IV.; J. Eaton. 3. Lustre; J. Davis. 4. Lord Lilford; A. Belshaw. 5. Don Cossack; Ditto. 6. La Cantique; W. Belshaw. 7. Surpasse Catafalque; Thos. Hilton. 8. Pilot; R. Ratcliffe. 9. Albion; J. Clegg.

Feathered Byblæmen.—1. Unknown; Thos. Hilton. 2. Ditto; Richd. Prescott. 3. La Belle Narene; T. Hilton. 4. Bienfait; R. Ratcliffe. 5. Maid of Orleans; Ditto. 6. Winner; W. Belshaw. 7. Mango; P. Hilton. 8. Queen of North; R. Ratcliffe. 9. Lancashire Hero; R. Prescott.

Feathered Rose.—1. Lady Crewe; R. Prescott. 2. Heroine; Ditto. 3. Comte; J. Davies. 4. Andromeda; R. Prescott. 5. Do Little; Ditto. 6. Brunette; T. Hilton. 7. Village Maid; A. Belshaw. 8. Walworth; R. Prescott. 9. Hero of the Nile; R. Hindley.

Flamed Byblæmen.—1. La Belle Narene; T. Hilton. 2. Siam; J. Clegg. 3. Princess Royal; R. Tyldesley. 4. Fouvier; T. Hilton. 5. Uncle Tom; R. Tyldesley. 6. Charlotte; Adam Belshaw. 7. Bienfait; J. Eaton. 8. Violet Walters; W. Belshaw. 9. Unknown; R. Hindley.

Flamed Rose.—1. Triomphe Royale; W. Belshaw. 2. Unique; John Eaton. 3. Aglaia; T. Hilton. 4. Governor; J. Davies. 5. La Vandicken; R. Ratcliffe. 6. Ponceau Brilliant; J. Davies. 7. Walworth; R. Hindley. 8. Andromeda; J. Davies. 9. Village Maid; John Eaton.

Bizarre Breeder.—1. Truth; J. Eaton. 2. Comet; J. Davies. 3. Polyphemus; R. Hindley. 4. Carbonier; R. Ratcliffe.

Byblæmen.—1. Maid of Orleans; W. Belshaw. 2. Belshaw's Glory; Ditto. 3. Seedling; R. Ratcliffe. 4. Lady Flora; R. Prescott.

Rose.—1. Village Maid; J. Eaton. 2. Lord Derby; R. Wilkinson. 3. Queen of England; R. Ratcliffe. 4. Lady Lilford; R. Prescott.

GREAT HARWOOD, NEAR BLACKBURN.

TULIP SHOW HELD AT THE LOMAX ARMS, MAY 28, 1859.

Feathered Bizarre.—Premier Alfred; T. Chippendale. 1. Charles X.; P. Gibson. 2. Earl of Surrey; T. Chippendale. 3. Truth; E. Hodgson. 4. Royal Gem; Thos. Chippendale. 5. Trafalgar; J. Baron. 6. Lord Lilford; T. Chippendale. 7. Seedling; E. Hodgson.

Flamed Bizarre.—Premier, Charles X.; R. Birtwistle. 1. San Joe; T. Chippendale. 2. Polyphemus; J. Baron. 3. Charles X.; T. Chippendale. 4. Pilot; Ditto. 5. Lustre; E. Hodgson. 6. Charbonier; T. Chippendale. 7. Charles Albert; E. Hodgson.

Feathered Byblæmen.—Premier, Violet Winner; J. Baron. 1. Bienfait; T. Gibson. 2. Violet Amiable, T. Chippendale. 3. Violet Winner; E. Hodgson. 4. Lord Ranciffe; Ditto. 5. Mildrame's No. 11; Thos. Chippendale. 6. Pablo; Ditto. 7. Beauty; E. Hodgson.

Flamed Byblæmen.—Premier, Bienfait, E. Hodson. 1. Lord Denman; T. Chippendale. 2. Queen Charlotte; Ditto. 3. Van Amburgh; N. Cotteril. 4. Lord Ranciffe; T. Gibson. 5. Prince Albert; T. Chippendale. 6. La Belle Narene; E. Hodson. 7. Bienfait; Ditto.

Feathered Rose.—Premier, Lady Crewe; R. Chippendale. 1. La Belle Narene; T. Gibson. 2. Lady Crewe; E. Hodgson. 3. Comte; Thos. Gibson. 4. Arlette; E. Hodgson. 5. Queen of Prussia; R. Chippendale. 6. Andromeda; T. Chippendale. 7. Seedling; E. Hodgson.

Flamed Roses.—Premier, Triomphe; N. Cotteril. 1. La Vandicken; T. Gibson. 2. Aglaia; E. Hodgson. 3. Triomphe; J. Baron. 4. Crystal Palace; T. Chippendale. 5. John Waterston; Ditto. 6. Hebe; T. Gibson. 7. Seedling; R. Chippendale.

Breeders, Bizarre.—1. Sulphur; T. Gibson. 2. Lord Dudley; Ditto. 3. Seedling; J. Baron. 4. Martin's No. 28; T. Gibson. 5. Seedling; J. Baron. 7. Lord Darnley; Ditto.

Byblæmen.—1. Seedling; R. Chippendale. 2. Ditto; J. Baron. 3. Mr. Gladstone; T. Chippendale. 4. Seedling; J. Martin. 5. Ditto; Ditto. 6. Philip I.; T. Chippendale.

Rose.—1. Seedling; E. Hodgson. 2. Ditto; Ditto. 3. Ditto; Ditto. 4. Ditto; J. Gibson. 5. Ditto; John Baron. 6. Ditto; Ditto.

Self.—1. Min d'Or; T. Gibson. 2. White Perfection; T. Chippendale.

Judges.—Mr. James Foulds, Blackburn; Mr. Ralph, Haworth.

ASHTON-UNDER-LYNE. "

ORIGINAL TULIP SHOW, HELD AT MR. THOMAS MOSS'S, GRAPES INN, CHURCH-STREET, MAY 30TH, 1869.

Judges.—Joseph Oldham, Moltram; Abraham Leach, Audenshaw; and William Alsop, Stockport.

Premium prize (silver cup), Joseph Newton, for Lancashire Hero and Sans Joe.

Best pair of Selfs, William Chadwick, for White Perfection and Min d'Or.

Feathered Bizarre.—1. Lord Lilford; W. Matley. 2. Duc de Savoy; J. Lee. 3. Charles X.; J. Hilton. 4. Magnum Bonum; J. Lee. 5. Surpasse Catafalque; W. Chadwick. 6. Royal Gem; S. Shawcross. 7. Rising Sun; J. Hilton. 8. Rufus; R. Taylor.

Feathered Byblæmen.—1. Violet Amiable; J. Newton. 2. Maid of Orleans; W. Wooller. 3. Bagot; J. Newton. 4. Lancashire Hero; J. Newton. 5. Bienfait; T. Mellor. 6. Lord Denman; W. Wooller. 7. Mango; J. Lee. 8. Beauty; J. Miller.

Feathered Rose.—1. Heroine; J. Buckley. 2. Lady Crewe; J. Miller. 3. Jupiter; W. Chadwick. 4. Comte; J. Newton. 5. Martin's Seedling, No. 121; Z. Peacock. 6. Andromeda; J. Hilton. 7. Aglaia; Z. Peacock. 8. Bion; T. Mellor.

Flamed Bizarre.—1. Don Cossack; W. Matley. 2. Polyphemus; T. Moss. 3. Charles X.; T. Mellor. 4. Albion; S. Shawcross. 5. Pilot; W. Chadwick. 6. Sans Joe; J. Hilton. 7. Surpasse Catafalque; J. Hilton. 8. Duke Hamilton; S. Fish.

Flamed Byblæmen.—1. Bacchus; J. Miller. 2. Louis XVI.; W. Chadwick. 3. Van Amburgh; T. Mellor. 4. Lord Denman; J. Wild. 5. Incomparable; J. Hilton. 6. Alexander Magnus; J. Wild. 7. Bienfait; T. Mellor. 8. La Belle Narene; J. Buckley.

Flamed Rose.—1. Rose Unique; W. Pickering. 2. Aglaia; Z. Peacock. 3. Triumph Royal; W. Chadwick. 4. Rose Vesta; J. Lee. 5. Bion; T. Moss. 6. Lord Hill; W. Wooller. 7. Celestial; W. Chadwick. 8. Le Vandyck; J. Buckley.

Bizarre Breeder.—1. Willison's King; J. Miller. 2. Sir Joseph Paxton; J. Warren. 3. Duke Hamilton; T. Mellor. 4. Curion; J. Haigh. 5. Polyphemus; J. Haigh. 6. Earl Radnor; J. Hilton.

Byblæmen Breeder.—1. Maid of Orleans; T. Mellor. 2. Philip I.; T. Mellor. 3. Duchess of Sutherland; W. Matley. 4. Sir Roger de Coverley; T. Moss. 5. Belshaw's Glory; J. Miller. 6. Incomparable; W. Pickering.

Rose Breeder.—1. Prince of Prussia; T. Mellor. 2. Queen of England; J. Miller. 3. Celestial; J. Lee. 4. Juliet; Z. Peacock. 5. Lady Stanley; T. Moss. 6. Seedling; W. Matley.

White Self.—Perfection; S. Fish.

Yellow Self.—Model; John Warren.

ASHTON-UNDER-LYNE.

TULIP SHOW, HELD AT MR. HALL'S, BOAR'S HEAD INN, MAY 30TH.

Judges.—Messrs. R. Taylor, of Glodwick; J. Oldham, of Mottram; and J. Hulton, of Hooley Hill.

Best Pan of Six Flowers.—Sidney, Amiable, Heroine, Sans Joe, Van Amburgh, and Aglaia, to J. Newton, of Fairbottom. The prize in this case consisted of a pint silver cup, lined with gold, value 3*l.* 3*s.*

Second Pan.—Lord Lilford, Incomparable, Heroine, Polyphemus, Alexander Magnus, Aglaia; W. Chadwick.

Best Breeder Pan.—Polyphemus, Orleans, Anastasia; J. Haigh.

Best Pan of Sels.—White Perfection, Min d'Or; W. Chadwick.

Feathered Bizarre.—1. Lord Lilford; W. Chadwick. 2. Sir Sydney Smith; J. Buckley. 3. Charles X.; J. Lee. 4. Sir Charles Napier; R. Alsop. 5. Surpasse Catafalque; W. Pickering. 6. Royal Gem; J. Haigh. 7. Joe Strutt; T. Mellor. 8. Seedling; T. Mellor.

Feathered Byblæmen.—1. Bienfait; R. Alsop. 2. Maid of Orleans; W. Chadwick. 3. Incomparable; W. Chadwick. 4. Lancashire Hero; J. Newton. 5. Bagot; W. Wooller. 6. General Barneveltdt; W. Chadwick. 7. Violet Amiable; J. Haigh. 8. Catherine; T. Mellor.

Feathered Rose.—1. Heroine; J. Buckley. 2. Lady Crewe; J. Miller. 3. Jupiter; W. Chadwick. 4. Mrs. Maynall; J. Miller. 5. St. Arnaud; T. Mellor. 6. Aglaia; W. Chadwick. 7. Comte; W. Chadwick. 8. Bion; W. Chadwick.

Flamed Bizarre.—1. Charles X.; Samuel Fish. 2. Polyphemus; W. Wooller. 3. Grand Sultan; J. Newton. 4. Don Cossack; T. Mellor. 5. Shakspeare; W. Chadwick. 6. Seldon; W. Chadwick. 7. Masterpiece; W. Wooller. 8. Albion; W. Chadwick.

Flamed Byblæmen.—1. Lord Denman; W. Wooller. 2. Bienfait; W. Matley. 3. Van Amburgh; T. Mellor. 4. Maid of Orleans; J. Buckley. 5. Bacchus; W. Pickering. 6. Incomparable; W. Chadwick. 7. La Belle Narene; W. Pickering. 8. Beauty of the Plain; W. Garside.

Flamed Rose.—1. Vesta; W. Chadwick. 2. Aglaia; J. Miller. 3. Anastasia; W. Chadwick. 4. Triumph Royal; W. Matley. 5. Rose Guerrier; W. Chadwick. 6. Unique; W. Chadwick. 7. Juliana; W. Wooller. 8. Catherine Gordon; W. Chadwick.

Bizarre Breeder.—1. Emperor Nicholas; J. Miller. 2. Florian; W. Chadwick. 3. Hamilton; W. Garside. 4. Pas Cat; J. Haigh. 5. Earl Radnor; J. Haigh. 9. Alfiero; W. Chadwick.

Byblæmen Breeder.—1. Maid of Orleans; John Hilton. 2. Lightning; J. Miller. 3. Unknown; W. Pickering. 4. William Bentley; W. Chadwick. 5. Duchess of Sutherland; W. Chadwick. 6. Bridesmaid; J. Haigh.

Rose Breeder.—1. Lord Derby; W. Chadwick. 2. Seedling; W. Matley. 3. Seedling; W. Matley; 4. Seedling; J. Haigh. 5. Kate Connor; W. Matley. 6. Seedling; J. Haigh.

Best Self.—1. Yellow Model; Robert Alsop. 2. White Perfection; W. Chadwick.

ROYSTON.

TULIP SOCIETY OPEN TO ALL ENGLAND.

The eighth annual meeting of the Society, was held in the Park-road School, on Saturday, the 4th day of June, 1859.

DECEMBER—VOL. XIII.

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Best Pan of Two Rectified Flowers.—1. Heroine and Polyphemus; H. Travis. 2. Maid of Orleans and Queen Charlotte; W. Bentley. 3. Charles X. and Polyphemus; B. Hilton. 4. Magnum Bonum and Charles X.; J. Wood. 5. Heroine and Polyphemus; S. Barlow. 6. Heroine and Polyphemus; J. Ashton. 7. Magnum Bonum and Sans Joe; J. Ogden. 8. Magnum Bonum and Albion; J. Heap. 9. Lady Crewe and Polyphemus; T. Fox. 10. Magnum Bonum and Guerrier; T. Stephenson. 11. Lady Crewe and Charles X.; W. Butterworth.

Feathered Bizarre.—1. Charles X.; B. Hilton. 2. Magnum Bonum; J. Wood. 3. Cat; B. Hilton. 4. Lord Lilford; J. Wood. 5. Royal Gem; H. Travis; 6. Marshal Soult; S. Barlow. 7. Surpass Optimus; S. Barlow.

Feathered Byblæmen.—1. Maid of Orleans; H. Travis. 2. Bienfait; J. Ashton. 3. Sable Monarch; B. Hilton. 4. Maid of Athens; W. Bentley. 5. Roland; J. Ogden. 6. Violet Amiable; J. Wood. 7. La Belle Narene; T. Fox.

Feathered Rose.—1. Heroine; S. Barlow. 2. Lady Crewe; J. Wood. 3. Rosa; B. Hilton. 4. Bion; W. Bentley. 5. Anastasia; H. Travis. 6. Queen Henrietta; W. Bentley. 7. Lady Grey; T. Fox.

Flamed Bizarre.—1. Charles X.; B. Hilton. 2. Polyphemus; B. Hilton. 3. Sans Joe; H. Travis. 4. Cat; B. Hilton. 5. Albion; B. Hilton. 6. Lilford; J. Wood. 7. Magnum Bonum; B. Hilton.

Flamed Byblæmen.—1. Maid of Orleans; H. Travis. 2. Lord Denman; W. Bentley. 3. Guillotine; B. Hilton. 4. Abbott's Gem; W. Bentley. 5. Bienfait; B. Hilton. 6. Mrs. Beecher Stowe; S. Barlow. 7. Alexander Magnus; H. Travis.

Flamed Rose.—1. Guerrier; H. Travis. 2. Celestial; W. Bentley. 3. Aglaia; B. Hilton. 4. Anastasia; W. Bentley. 5. Van Querre; B. Hilton. 6. Unknown; W. Bentley. 7. Triomphe Royale; T. Fox.

Bizarre Breeder.—1. Admiral Napier; T. Fox. 2. Duke of Hamilton; H. Travis. 3. Omer Pasha; B. Bentley.

Byblæmen Breeder.—Maid of Orleans; H. Travis. 2. Delicata; W. Bentley. 3. Bunker's Hill Hero; J. Ashton.

Rose Breeder.—1. Unknown; J. Wood. 2. Catherine; H. Travis. 3. Seedling; J. Ashton.

Self.—Best Yellow; B. Hilton.

MOTTRAM.

TULIP SHOW, HELD AT MR. CHADWICK'S, TOLLEMACHE ARMS, JUNE 4TH, 1859.

1. Maiden; Do Little; George Hurst. 2. Surpasse Catafalque; James Platt. 3rd Class; 10. T. Dawson. 4th Class; J. Rhodes. Best Beaten; Crown Prince; J. Shepley. *Ex-premier* Feathered, Charles X.; J. Oldham. *Ditto*, Flamed, Van Amburgh; Geo. Woodhead.

Feathered Bizarre.—1. Lord Lilford; A. Garside. 2. Charles; T. Dawson. 3. Surpasse Catafalque; J. Platt. 4. Crown Prince; J. Shepley. 5. Magnum; J. Oldham. 6. Trafalgar; J. Shepley. 7. Duke de Savoy; J. Hurst. 8. Unknown; W. Wood.

Feathered Byblæmen.—1. Maid of Orleans; J. Rhodes. 2. Bienfait; J. Shawcross. 3. La Belle Narene; J. Oldham. 4. Violet Winner; G. Hurst. 5. Foot; W. Wood. 6. Clotilda; J. Oldham. 7. Prince Albert; J. Shawcross. 8. Unknown; J. Lawton.

Feathered Rose—1. Do Little; J. Hurst. 2. Newcastle; J. Oldham. 3. Andromeda; E. Robinson. 4. Unknown; J. Oldham. 5. Lady Crewe; E. Robinson. 6. Village Maid; G. Watts. 7. Heroine; J. Rhodes. 8. Lady Gray; J. Oldham.

Flamed Bizarre.—1. Polyphemus; E. Jackson. 2. Charles X.; J. Rhodes. 3. Surpass Catafalque; E. Robinson. 4. Surpasse Catafalque; A. Garside. 5. Albion; E. Jackson. 6. Joe Strutt; G. Woodhead. 7. Unknown; J. Shepley. 8. Unknown; E. Robinson.

Flamed Byblæmen.—1. Maid of Orleans; E. Jackson. 2. H. & B.; J. Lawton. 3. Bienfait; T. Chadwick. 4. Ashtonian; J. Oldham. 5. Lord Denman; J. Shepley. 6. La Belle Narene; J. Oldham. 7. Baquet; T. Chadwick. 8. Incomparable; J. Shawcross.

Flamed Rose.—1. Aglaia; J. Oldham. 2. Rose Unique; T. Chadwick. 3. Triumph Royal; J. Shawcross. 4. Catherina Gordon; G. Woodhead. 5. Lord Hill; J. Platt. 6. Vesta; J. Shawcross. 7. Lady Crewe; J. Shawcross. 8. Unknown; A. Garside.

Breeders, Bizarre.—1. Victory; J. Oldham. 2. Catafalque; W. Wood. 3. Polyphemus; J. Oldham. 4. Cyclops; J. Shawcross.

Byblæmen.—1. Maid of Orleans; G. Watts. 2. Beauty; R. Shaw. 3. Martin's No. 8; G. Woodhead. 4. Van Amburgh; A. Garside.

Rose.—1. Village Maid; E. Jackson. 2. Newcastle; J. Oldham. 3. Lady Stanley; A. Garside. 4. Seedling; J. Lawton.

Self.—Min d'Or; J. Lawton. 2. White Flag; J. Shawcross.

STALEYBRIDGE.

TULIP SHOW, HELD AT THE FORESTERS' REFUGE INN, JUNE 4TH, 1859.

Feathered Bizarre.—Premier, Lord Lilford; J. Woodhead. 1. Surpasse Catafalque; G. Chadwick. 2. Charles X.; J. Woodhead. 3. Sidney; M. Newton. 4. Whitfield Hero; T. Penkithman. 5. Duke de Savoy; W. Cottam. 6. Royal Gem; J. Woodhead.

Flamed Bizarre.—Premier, Polyphemus; W. Cottam. 1. Charles X.; W. Cottam. 2. Liberty; J. Woodhead. 3. Lecantique; T. Penkithman. 4. Albion; W. Cottam. 5. Lustre; W. Cottam. 6. Pilot; W. Cottam.

Feathered Byblæmen.—Extra Premier, Duchess of Sutherland; J. Woodhead. 1. Unknown; S. Marsland. 2. Duchess of Orleans; W. Cottam. 3. Bienfait; M. Wilde. 4. Violet Amiable; W. Cottam. 5. Sable Monarch; S. Woodhead. 6. Grand Fernance; W. Cottam.

Flamed Byblæmen.—Premier, Van Amburgh; J. Woodhead. 1. Rio de Siam; W. Cottam. 2. Democrat; J. Woodhead. 3. La Belle Narene; M. Wilde. 4. Bienfait; M. Newton. 5. Unknown; W. Cottam. 6. Violet Amiable; M. Newton.

Feathered Rose.—Premier, Arlette; J. Woodhead. 1. Lady Crewe; T. Penkithman. 2. Do Little; T. Penkithman. 3. Heroine; T. Penkithman. 4. Midland Beauty; W. Cottam. 5. Lady Jane Grey; J. Woodhead. 6. Hero of the Nile; W. Cottam.

Flamed Rose.—Extra Premier, Unique; W. Cottam. 1. Triomphe Royale; M. Wilde. 2. Aglaia; J. Woodhead. 3. La Vandicken; W. Cottam. 4. Anastasia; W. Cottam. 5. Unknown; S. Marsland. 6. Lord Hill; T. Penkithman.

Bizarre Breeder.—1. Surpasse Catafalque; W. Cottam. 2. Pilot; W. Cottam. 3. Unknown; W. Cottam. 4. Polyphemus, W. Cottam.

Byblæmen Breeder.—1. Duchess of Orleans; W. Cottam. 2. Lord Denman; W. Cottam. 3. Sable Monarch; J. Woodhead. 4. Prince Albert; W. Cottam.

Rose Breeder.—1. Lady Stanley; M. Wilde. 2. Lord Derby; J. Woodhead. 3. Juliet; J. Woodhead. 4. Fairy Queen; W. Cottam.

Self.—1. Yellow Model; T. Penkithman. 2. White Perfection; W. Cottam.

CHESTERFIELD.

PANSY SHOW, OPEN TO ALL ENGLAND, JUNE 6TH, 1859.

Class 1.—Open to Nurserymen and Amateurs.—Best 24 dissimilar blooms—First prize, Mr. Robert R. Oswald, of Birmingham, with Cyrus, Mary Lamb, Constellation, Blue Bonnet, Sir C. Campbell, Miss Hill, Mr. Wentworth (Oswald), J. B. Gough, Seedling 1859 (Oswald), William Griffiths (Oswald), Lady Belhaven, Lizzie, Yellow Model, Mrs. Laird, John Walton, Countess of Rosslyn, Seedling 1859, Mrs. Dodwell, Dred, Red Rover, Venus, Seedling 1859, Una, Earl of Derby; second, Mr. Beeston, Hans Hall, Staffordshire, with Magnificent, Miss Walker, Refinement, Triumphant, William, Colonel Windham, Mrs. A. Murray, John Lofley, Lizzie, General Williams, Lady Matheson, Mrs. Dodwell, Napoleon, Brilliance, Cyrus, J. B. Gough, William Aston, Mr. T. Grayham, Mrs. Laird, Yellow Beauty, Royal Visit, Red Rover, Miss Caroline, Hylos; third, Mr. William Slack, Brampton, Chesterfield, with Rifleman, Mr. Broomhead, Seedling No. 2, Jeannie, Royal Standard, Constellation, Mrs. Dodwell, Seedling No. 4, Seedling No. 5, Mr. Laird Maude, Dreadnought (Seedling), Napoleon, Rebecca, Memnon, Alice, Colonel Windham, Charles Mackintosh, Roland, Seedling No. 3.

Class 2.—Open to Nurserymen and Amateurs.—Twelve blooms—First prize, Mr. Robt. R. Oswald, with Miss Hill, Royal Standard, Napoleon, Mrs. Dodwell, Lady Belhaven, John Lofley, Cream of the Valley, Robert Mason, William Griffiths, Mrs. Laird, Seedling 1859, and Lady Middleton; second, Mr. Beeston, with Mrs. Dodwell, Hylos, Dred, Cyrus, Constellation, Ariadne, Yellow Model, Fair Maid, Venus, Red Rover, Napoleon, Cream of the Valley; third, Mr. William Slack, with Dr. Flemming, Seedling No. 4, Robert Mason, Memnon, Lady Napier, Seedling No. 1, Royal Visit, Refinement, General Havelock, Ariadne, Father Gavazzi, Seedling No. 3; fourth, Mr. J. Charlesworth, Chesterfield, with Jeannie, Cyrus, Royal Visit, Duke of Sutherland, Yellow Climax, Miss Walker, Memnon, General Williams, Seedling, Gem, Riflemen, Mrs. Hampton; fifth, Mr. Frederick Nicholson, Sheffield, with Seedling, Mrs. Dodwell, Royal Visit, Miss Talbot, Uncle Tom, Rev. H. Gossett, Lady Emily, Prince Alfred, Earl of Mansfield, Maria, Duke of Sutherland, and Seedling.

Class 3.—Open to Amateurs only.—Six blooms—First prize, Mr. Charles Aukland, Chesterfield, with Seedling (dark self), Seedling (yellow ground), John Walton, Mrs. Dodwell, Maria, Colonel Windham; second, Mr. Haddock, Clay Cross, with Seedling, Flower of the Day, Mrs. Dodwell, Colonel Windham, Memnon, Duke of Bridgewater; third, Mr. Frederick Nicholson, with Miss Talbot, Seedling, Favourite, Duchess of Wellington, Mrs. Dodwell, Duke of Sutherland; fourth, Mr. Rodgers, with Jeannie, Mrs. Hampton, Mrs. Dodwell, Sir J. Cathcart, Lord J. Russell, Royal Visit.

Premier flower, and best dark, Mr. Thomas Graham (Douglas), Mr. Beeston; best white ground, Mrs. Laird (Downie and Laird), Mr.

Oswald; best yellow ground, William Griffiths (Oswald), Mr. Oswald; best yellow self, Mrs. Dodwell (Fisher), Mr. Oswald; best white self, Cream of the Valley (Hooper), Mr. Oswald.

MIDDLETON.

ANNUAL PINK SHOW, HELD AT MR. JOHN HARRISON'S, MASONS' ARMS, JULY 11TH, 1859.

Judges.—Mr. William Kent, Mr. James Heap, and Mr. John Marsden.

Maiden Pan.—Victory, Lord Raglan, Miss Jessop; Edward Collinge.

1. Victory, Royal Visit, Beauty of Blackburn; Henry Howarth, sen.
2. Victory, Royal Visit, Miss Jessop; Joshua Lancashire. 3. Victory, John Ball, Black-eyed Susan; John Beswick. 4. Victory, Royal Visit, Mistress Sarah; Henry Howarth, jun. 5. Huntsman, Royal Visit, Mistress Sarah; William Taylor. 6. Victory, Royal Visit, Beauty of Blackburn; Thomas Lancashire.

Purple Lace.—1. Huntsman; Thomas Lancashire. 2. Victory; James Burgess. 3. Auckland's Mary; Joshua Lancashire. 4. Duke of St. Albans; Moses Partington. 5. Gipsy King; Moses Partington. 6. John o' Gaunt; Thomas Lancashire. 7. Mango; Samuel Rayner. 8. Guido; Thomas Mellor. 9. Beauty of Rochdale; John Beswick. 10. Seedling; Thomas Lancashire.

Red Lace.—1. Royal Visit; John Beswick. 2. John Ball; Thomas Mellor. 3. Sturge; John Beswick. 4. Dan. O'Rourke; Joshua Lancashire. 5. Anna Maria; John Beswick. 6. Seedling; Moses Partington. 7. Seedling; Thomas Lancashire. 8. Cobden; Moses Partington. 9. Duchess of Lancaster; John Beswick. 10. Purity; John Beswick.

Black and White.—1. Black-eyed Susan; James Burgess. 2. Miss Jessop; Thomas Lancashire. 3. Virgin Queen; Henry Howarth, sen. 4. Mistress Sarah; Henry Howarth, jun. 5. Mrs. Bradley; Joshua Lancashire. 6. Seedling; Joshua Lancashire. 7. Beauty of Blackburn; Thomas Lancashire. 8. Ladybold Houghton; Thomas Lancashire. 9. Lady Frost; Joshua Lancashire. 10. Kaye's Mary; Thomas Mellor.

SEEDLING SWEEP.

Red Lace.—1. Moses Partington. 2. Thomas Lancashire.

Purple Lace.—1. Thomas Lancashire. 2. John Beswick.

Black and White.—1. Joshua Lancashire. 2. Moses Partington.

MIDDLETON.

PINK SHOW HELD AT MR. JOHN SMITHIES', WOODMAN INN, WOOD-STREET, MIDDLETON, JULY 16, 1859.

Judges.—Mr. William Kent; Mr. James Heap.

1. Huntsman, Royal Visit, Mistress Sarah; James Burgess. 2. Huntsman, John Ball, Mistress Sarah; Joshua Lancashire. 3. Victory, Royal Visit, Mistress Sarah; Henry Howarth, sen. 4. Huntsman, Royal Visit, Mistress Sarah; Samuel Beswick. 5. Victory, Royal Visit, Mistress Sarah; Henry Howarth, jun. 6. Victory, Royal Visit, Mistress Sarah; Moses Partington.

Purple Lace.—1. Victory; John Beswick. 2. Huntsman; Joshua Lancashire. 3. Auckland's Mary; John Beswick. 4. Mango; John Beswick. 5. Gipsy King; Thomas Lancashire. 6. Beauty of Roch-

dale; Joshua Lancashire. 7. Seedling; John Beswick. 8. Seedling; Moses Partington.

Red Lace.—1. Royal Visit; John Beswick. 2. John Ball; Joshua Lancashire. 3. Cobden; James Burgess. 4. Anna Maria; John Beswick. 5. Joseph Sturge; John Beswick. 6. Susannah; Thomas Lancashire. 7. Mary Ellen; James Burgess. 8. Dan. O'Rourke; Samuel Beswick.

Black and White.—1. Black-eyed Susan; James Burgess. 2. Miss Jessop; James Burgess. 3. Mistress Sarah; Henry Howarth, sen. 4. Ladybold Haughton; John Beswick. 5. Kaye's Mary; Thomas Lancashire. 6. Mrs. Bradley; Joshua Lancashire. 7. Snowball; Thomas Lancashire. 8. Beauty of Home; Henry Howarth, sen.

HOLTS-MILL, NEAR BLACKBURN.

TULIP SHOW HELD AT THE PETER'S ARMS.

Extra Premier.—Charles X.; T. Gibson.

Feathered Bizarre, Premier.—Charles X.; J. Foulds. 1. Charles X.; T. Gibson. 2. Catafalque Superior; J. Foulds. 3. Sulphur; J. Chippendale. 4. Truth; J. Chippendale. 5. Paganini; E. Hodgson. 6. Lord Lilford; T. Chippendale. 7. Sir J. Paxton; T. Chippendale.

Flamed Bizarre, Premier.—Polyphemus; E. Hodgson. 1. Ditto, ditto. 2. Don Cossack; T. Gibson. 3. Charbonier; T. Gibson. 4. Paganini; T. Gibson. 5. Charles X.; T. Chippendale. 6. Catafalque; T. Gibson. 7. Pilot; T. Chippendale.

Feathered Byblæmens, Premier.—Unknown; J. Baron. 1. Gibbons; J. Foulds. 2. Bouquet, E. Hodgson. 3. Meldrams, No. 11; T. Chippendale. 4. Bienfait; T. Gibson. 5. Violet Amiable; T. Chippendale. 6. Seedling; T. Chippendale. 7. La Belle Narene; J. Baron.

Flamed Byblæmens, Premier.—Lord Denman; T. Chippendale. 1. Violet Perfection; J. Foulds. 2. La Belle Narene; E. Hodgson. 3. Blœmart; T. Gibson. 4. Pucella; T. Gibson. 5. General Barneveldt; T. Gibson. 6. General Loftus; J. Foulds. 7. Magnus; T. Chippendale.

Feathered Roses, Premier.—Lady Crewe; R. Chippendale. 1. Lady Crewe; J. Foulds. 2. Walworth; T. Gibson. 3. Seedling, E. Hodgson. 4. La Belle Narene; T. Gibson. 5. Seedling (Martin); E. Hodgson. 6. Seedling (Martin); E. Hodgson. 7. Arlette (Martin); E. Hodgson.

Flamed Roses, Premier.—Triomphe; N. Cotterill. 1. La Vandyken; J. Foulds. 2. Unknown; J. Foulds. 3. Triomphe; E. Hodgson. 4. Seedling; E. Hodgson. 5. Rose Quarto; T. Gibson. 6. Thebe; T. Gibson. 7. Seedling; N. Cotterill.

Bizarre Breeders.—1. Seedling (Martin); T. Gibson. 2. Polyphemus; J. Foulds. 3. Pliny (Seedling); E. Hodgson. 4. Seedling; T. Chippendale.

Byblæmen Breeders.—1. Seedling; R. Chippendale. 2. Seedling; T. Chippendale. 3. Seedling; T. Gibson. 4. Seedling; R. Chippendale.

Rose Breeders.—1. Seedling; E. Hodgson. 2. Seedling; T. Chippendale. 3. Seedling; E. Hodgson. 4. Seedling; R. Chippendale.

Sels.—1. Model; J. Foulds. 2. Virgin Queen; T. Chippendale.

Judges.—Mr. W. Wilkinson, Blackburn, and Mr. R. Hausman, Accrington.

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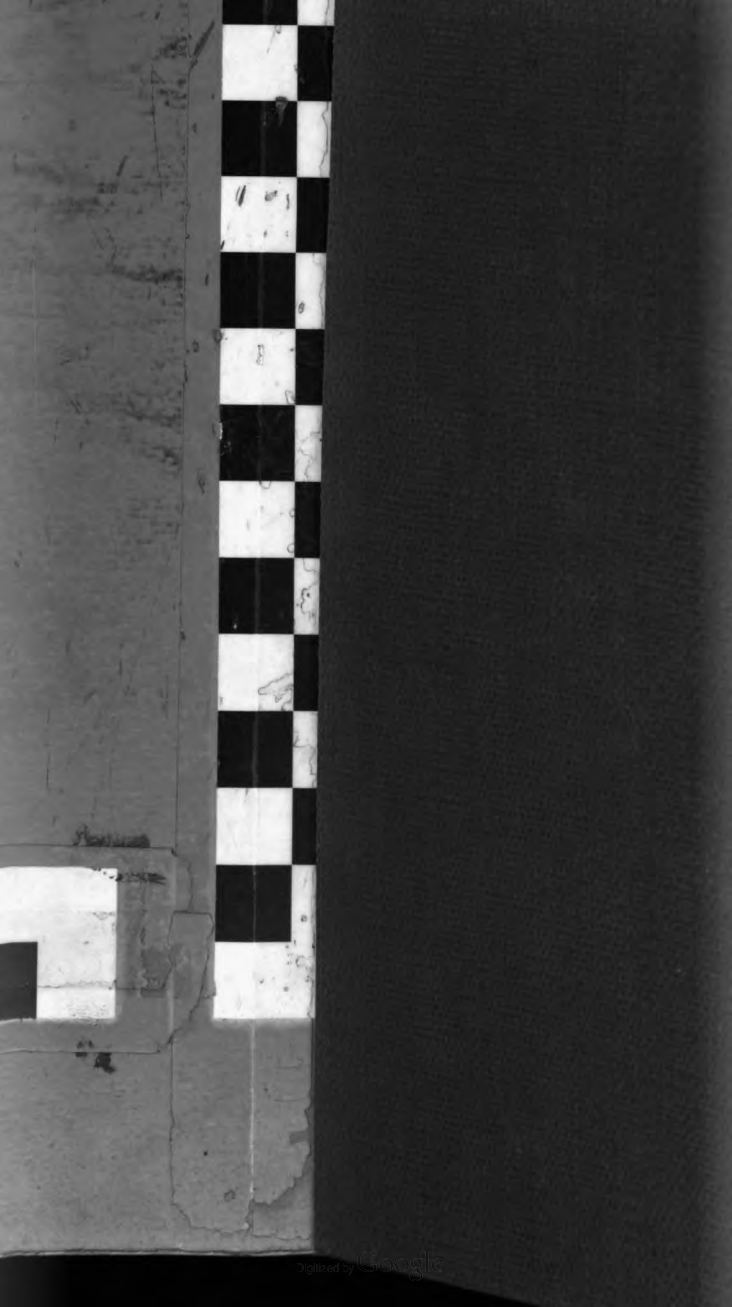
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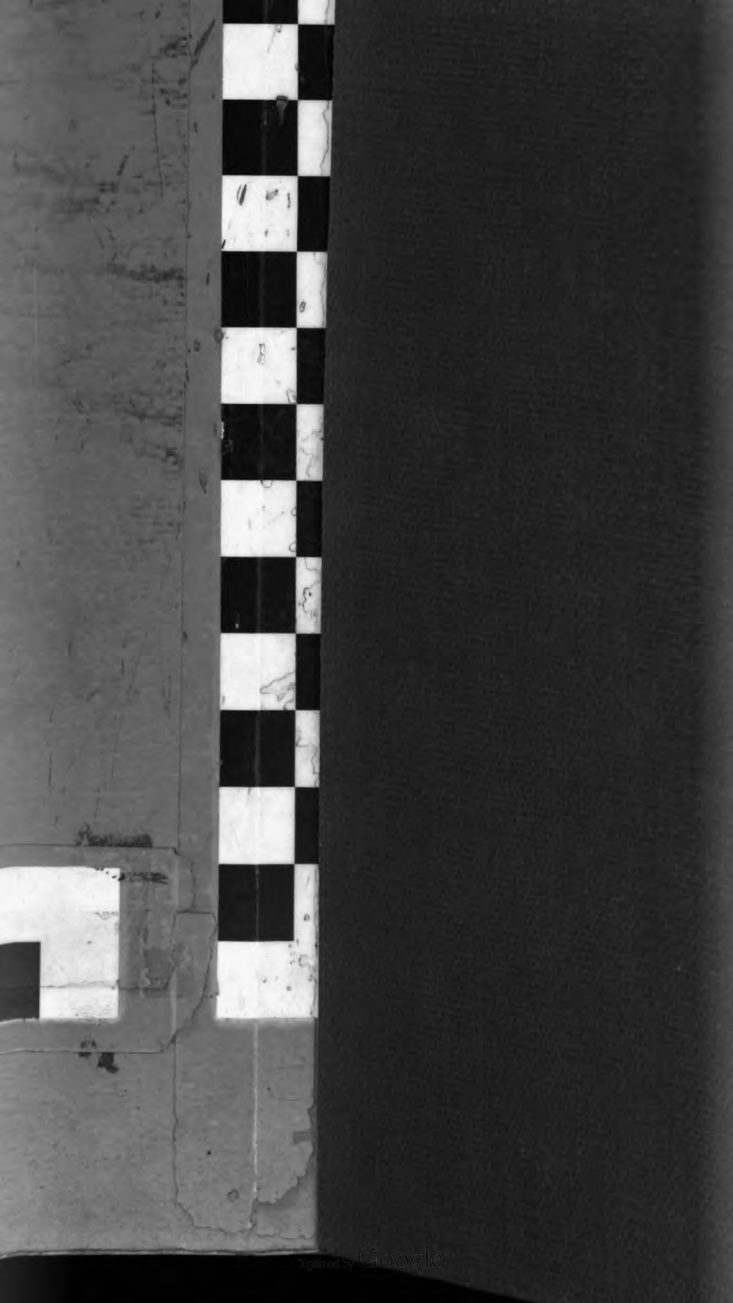
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